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For the Windows ® and Linux operating systems

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API Reference

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HP CSA 4.x API Reference Introduction

The APIs for HP Cloud Service Automation (CSA) use a REST interface. See http://en.wikipedia.org/wiki/Representational_state_transfer for general REST information. This documentation assumes that you know how to use REST interfaces.

See the *HP Cloud Service Automation API Quick Start* for information on communication with CSA using RESTful calls.

Caution: This document includes information only on the REST APIs introduced in CSA 3.x, and that are still available in CSA 4.x. Information on REST APIs introduced in CSA 4.x can be found in the *HP Cloud Service Automation API Quick Start*.

The base URL for a CSA REST API is https://<host:port>/csa/rest, which is appended with the specific URI for the API call. For example, to access the <example> API, you would use the URL: https://<host:port>/csa/rest/<example>.

Because XML content passed into or returned by CSA REST API calls can be lengthy, example XML content presented in this document will often be abbreviated to include just the more pertinent XML content.

Note: Special or localized characters used in the URL of REST API calls must be encoded before they are sent to the server.

Tip: You should only include one value for a Boolean property and the value must be either true or false.

Chapter 1: Artifact API

Description

Use this API to view, create, and modify CSA artifacts.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

Artifact

URI	Method	Parameters	Description
/artifact	POST	userIdentifier	"Create an artifact" on page 11
/artifact/<artifact_id>	GET	userIdentifier, scope, detail, view	"View an artifact" on page 12
/artifact/<artifact_id>	PUT	userIdentifier, scope, view	"Update an artifact" on page 14
/artifact/<artifact_id>	DELETE	userIdentifier	"Delete an artifact" on page 17
/artifact/fastview/<artifact_id>	GET	userIdentifier, view	"Retrieve a predefined view for an artifact" on page 17
/artifact/<artifact_id>/resolveProperties	GET	userIdentifier, propertyName	"Retrieve resolved properties for an artifact" on page 19

Group

URI	Method	Parameters	Description
/artifact/<organization_id>/group	GET	userIdentifier	"List active groups associated with an organization" on page 22
/artifact/<organization_id>/group	POST	userIdentifier	"Add groups to an organization" on page 23

URI	Method	Parameters	Description
/artifact/<organization_id>/group/<grou_id>	PUT	userIdentifier	"Update group display name, distinguished name" on page 25
/artifact/<organization_id>/group/<group_id>	DELETE	userIdentifier	"Delete or disassociate group from an organization" on page 26

Resource Provider

URI	Method	Parameters	Description
/artifact	GET	userIdentifier, artifactType	"List resource providers" on page 27

Service Offering

URI	Method	Parameters	Description
/artifact/<service_offering_id>/document	POST	userIdentifier	"Add document to service offering" on page 28
/artifact/<service_offering_id>/document	DELETE	userIdentifier	"Delete document from service offering" on page 30
/artifact/<service_offering_id>/document/<document_id>	POST	userIdentifier	"Update document in service offering" on page 31
/artifact/<catalog_id>/publish	POST	userIdentifier	"Publish service offerings to catalog" on page 31
/artifact/<catalog_id>/unpublish	POST	userIdentifier	"Unpublish service offerings from catalog" on page 33

Note: You can view information about an artifact with GET /artifact/<artifact_id> or GET /artifact/fastview/<artifact_id>. The fastview API can traverse associations, while the standard artifact API only returns information for the artifact.

Artifact types

You can work with the following artifact types using the /artifact API. You can use them with the methods marked in the table.

Artifact type	GET	POST	PUT	DELETE
Approval process	X			

Artifact type	GET	POST	PUT	DELETE
Approval template	X			
Approver	X			
Catalog	X	X	X	X
Document	X	X		X
Group	X			
Named approver approval template	X			
Organization	X	X	X	X
Person	X			
Resource binding	X		X	
Resource environment	X			
Resource offering	X	X	X	
Resource pool	X	X	X	X
Resource provider	X	X	X	X
Resource subscription	X		X	
Service component	X	X	X	X
Service blueprint	X	X	X	X
Service instance	X		X	
Service offering	X	X	X	X
Service request	X			
Subscription	X			

Create an artifact

Details

URI	`/artifact`
Method	POST

URI	`/artifact`
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

View an artifact

Details

URI	`/artifact/<artifact_id>`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree|view]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned. If the value is *vie*, then the view parameter is required.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147
	
	Note: Some API calls do not support all possible values for this parameter.
	
	`detail=FULL`, even as the default value, is not accepted for organization artifacts because the volume of content returned can be excessively large. Specify `detail=BASIC` to avoid an exception message.
	
	`view=<view_type>`
	Required when value for `scope` is *view*; if this parameter is defined, then the value for `scope` is processed as if its value was *view*. The default is *basicinfo*. See "Artifact views" on page 36 for a list of view types.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/artifact/90e72e4f3b00a69e013b0bf7ed55002e?userIde
ntifier=<user_id>
```

The following XML was returned in the response:

```
<ResourceEnvironment>
  <id>90e72e4f3b00a69e013b0bf7ed55002e</id>
  <objectId>90e72e4f3b00a69e013b0bf7ed55002e</objectId>
  <createdOn>2012-11-16T17:24:55.765-08:00</createdOn>
  <updatedOn>2012-11-16T17:24:55.765-08:00</updatedOn>
  <createdBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    <objectId>90d96588360da0c701360da0f1d5f483</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>admin</name>
    <displayName>admin</displayName>
    <disabled>false</disabled>
  </createdBy>
  <updatedBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    <objectId>90d96588360da0c701360da0f1d5f483</objectId>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <name>admin</name>
    <displayName>admin</displayName>
    <disabled>false</disabled>
  </updatedBy>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>TestEnv</description>
  <name>TestEnv_November 17, 2012 1:24:55 AM UTC</name>
  <displayName>TestEnv</displayName>
  <state>
    <id>90d96588360da0c701360da0ef470038</id>
    <objectId>90d96588360da0c701360da0ef470038</objectId>
    <createdOn>2012-11-01T15:16:54.687-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Active</description>
    <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
    <name>ACTIVE</name>
    <displayName>Active</displayName>
    <disabled>false</disabled>
    <categoryType>
       <id>90d96588360da0c701360da0ef420037</id>
      <objectId>90d96588360da0c701360da0ef420037</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>ARTIFACT_STATE</name>
```

```
      <displayName>Artifact State</displayName>
      <extensible>false</extensible>
    </categoryType>
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eedb0020</id>
    <objectId>90d96588360da0c701360da0eedb0020</objectId>
    <createdOn>2012-11-01T15:16:57.787-07:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Resource Environment</description>
    <iconUrl>
      /csa/images/categories/artifact_type/resource_environment.png
    </iconUrl>
    <name>RESOURCE_ENVIRONMENT</name>
    <displayName>Resource Environment</displayName>
    <disabled>false</disabled>
    <categoryType>
    <id>90d96588360da0c701360da0eeb40017</id>
      <objectId>90d96588360da0c701360da0eeb40017</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>ARTIFACT_TYPE</name>
      <displayName>Artifact Type</displayName>
      <extensible>false</extensible>
    </categoryType>
  </artifactType>
  <disabled>false</disabled>
  <numberOfProvider>0</numberOfProvider>
  <numberOfServiceDesign>0</numberOfServiceDesign>
  <numberOfCatalog>0</numberOfCatalog>
</ResourceEnvironment>
```

Update an artifact

Details

URI	/artifact/<artifact_id>
Method	PUT

URI	/artifact/<artifact_id>

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`view=<view_type>&scope=view`
	Optional; Used to update artifacts based on pre-defined views. See "Artifact views" on page 36 (description column) for a list of view types that support update operation.
	
	`<_artifact_property>_action_=merge`
	Optional; use the *merge* option with the *action* meta tag query parameter to update only a portion of the artifact. The *action* meta tag can either be specified globally for the artifact by including parameter `_action_=merge`, or for a specific property e.g., `_property_values_action_=merge`.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Note: To completely update the artifact, i.e., replace the persistent artifact, do not use the *view* or *merge* parameters and include all artifact content in the request body. Note that if only a portion of the artifiact content is sent in the request body, any unspecified content will be removed from the artifact.

To update a portion of the artifact:

- Use a pre-defined view that contains a subset of the artifact properties; only that subset of properties will be updated per the values specified in the request body. See"Artifact views" on page 36 for a list of view types.
- Use the *merge* option as described under Parameters.
  Note: You can use the *merge* option with the v*iew* parameter to update only the view properties for which you specify values in the request body.

Note: Collection specific behavior

When a *merge* option is specified on a collection, for example `_property_values_action_=merge`, all collection items specified in the PUT request body are updated. Any other collection items are left untouched.
For the *property* attribute of an artifact, the items of this collection attribute are matched by name. For all other attributes, the collection items are matched by id.

Examples

The following examples demonstrate how to update an artifact.

This example shows how to change the finalize flag of a component using the view parameter.
The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e4f3af5c989013afb471ebc0264?userIde
ntifier=&scope=view&view=componentfinalize
```

The following XML was sent in the request body:

```
<ServiceComponent>
  <id>90e72e4f3af5c989013afb471ebc0264</id>
  <toFinalize>false</toFinalize>
</ServiceComponent>
```

This example shows changing the display name of a resource provider. This example does not use the view parameters. To use this approach, retrieve the artifact using GET artifact API, modify the necessary value (in this example - displayName), and use that as the body of the PUT request to update the artifact.
The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e4f3b00a69e013b0c049ab00033?userIde
ntifier=<user_id>
```

The following XML was sent in the request body:

```
<ResourceProvider>
  <id>90e72e4f3b00a69e013b0c049ab00033</id>
  <objectId>90e72e4f3b00a69e013b0c049ab00033</objectId>
  <createdOn>2012-11-16T17:38:46.576-08:00</createdOn>
  <updatedOn>2012-11-16T17:38:46.576-08:00</updatedOn>
  <createdBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    ...
  </createdBy>
  <updatedBy>
    <id>90d96588360da0c701360da0f1d5f483</id>
    ...
  </updatedBy>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>TestProvider</description>
  <name>TestProvider_November 17, 2012 1:38:46 AM UTC</name>
  <displayName>TestProviderModified</displayName>
  <state>
    <id>90d96588360da0c701360da0ef470038</id>
    ...
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eed8001f</id>
    ...
  </artifactType>
  <disabled>false</disabled>
  <accessPoint>
    <id>90e72e4f3b00a69e013b0c049a740032</id>
```

```
    ...
  </accessPoint>
  <providerType>
    <id>90d96588360da0c701360da0eeac0016</id>
    ...
  </providerType>
  <numberOfResourceOffering>0</numberOfResourceOffering>
  <numberOfEnvironment>0</numberOfEnvironment>
  <numberOfPools>0</numberOfPools>
</ResourceProvider>
```

Delete an artifact

Details

URI	`/artifact/<artifact_id>`
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Deletion is subject to a set of business rules which depend on the type of artifact. The business rules for artifacts are explained in the table below. Note that consumption artifacts are not removed from the database when they are deleted; instead, the artifact is marked as retired. Please refer to the "Catalog API" on page 44 for retiring consumption artifacts.

Artifact type	Details
Resource provider	Can only be deleted if no active service subscriptions use the resource provider.
Service design	Can be deleted when all associated service offerings or service instances are retired.

Retrieve a predefined view for an artifact

Because the REST API presented here returns content in a different format when retrieving a single result versus multiple results, and could thereby complicate your using the results, it is recommended that the "View an artifact" on page 12 API be used. Performance intensive applications might still choose to use the following API.

Details

URI	`/artifact/fastview/<artifact_id>`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`view=<view_type>`
	Required; see "Artifact views" on page 36 for a list of view types.

Returns	200 - Ok 404 - Not found 500 - Server exception

Examples

The following URL was sent. Note that artifact_id is the ID of any artifact that has an accesspoint.

```
https://<host>:port/csa/rest/artifact/fastview/90e72e4f3abe4bf4013ac24735730010?
userIdentifier=<user_id>&view=accesspoint
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<resultView>
  <resultMap>
    <entry>
      <key>accessPoint.uri</key>
      <value xsi:type="xs:string">http://amz:443</value>
    </entry>
    <entry>
      <key>accessPoint.password</key>
      <value xsi:type="xs:string">amz</value>
    </entry>
    <entry>
      <key>accessPoint.username</key>
      <value xsi:type="xs:string">amz</value>
    </entry>
    <entry>
      <key>accessPoint.category.name</key>
      <value xsi:type="xs:string">URL</value>
    </entry>
  </resultMap>
</resultView>
```

Filtering

You can filter the results by providing a value for a property in the URI. The query is then filtered based on that property. You can use the properties listed in "Artifact views" on page 36.

Note: The property name that is specified in the URL must have the period (.) character replaced with the underscore (_) character.

The following example shows the result when the previous example is filtered on a property name.

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/fastview/90e72e4f3b00a69e013b0c049ab0003
?userIdentifier=<user_id>&view=propertyinfo&property_name=propBLN
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<resultView>
  <resultMap>
    <entry>
      <key>property.values.value</key>
      <value xsi:type="xs:string">true</value>
    </entry>
    <entry>
      <key>property.consumerVisible</key>
      <value xsi:type="xs:boolean">true</value>
    </entry>
    <entry>
      <key>property.displayName</key>
      <value xsi:type="xs:string">Boolean property</value>
    </entry>
    <entry>
      <key>property.valueType.name</key>
      <value xsi:type="xs:string">BOOLEAN</value>
    </entry>
    <entry>
      <key>property.name</key>
      <value xsi:type="xs:string">propBLN</value>
   </entry>
  </resultMap>
</resultView>
```

Retrieve resolved properties for an artifact

A property can have a source binding configured that indicates its value is to be retrieved from a property on another artifact. The REST API discussed here provides a mechanism to retrieve the value from the source property. As part of this retrieval, relevant tokens configured on properties are also resolved.

There are two approaches to retrieving resolved properties:

- Retrieve all properties
- Retrieve a single named property

Details

URI	`/artifact/<artifact_id>/resolveProperties`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`propertyName=<property_name>`
	Optional; the name of the property you want to retrieve. Only retrieves the value for the property specified.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

The following URL was used to retrieve all properties for an artifact:

```
https://<host>:<port>/csa/rest/artifact/<id>/resolveProperties?userIdentifier=<user_id>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Properties>
    <property> ... </property>
    <property> ... </property>
    <property>
        <id>90d9651a3684c7f0013684cafda80005</id>
        <createdOn>2012-04-05T16:15:57.480-07:00</createdOn>
        <updatedOn>2012-04-05T16:15:57.497-07:00</updatedOn>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <name>PARENT_SVC_COMPONENT_ID</name>
        <artifact>
            <id>90d9651a3684c7f0013684cafda80008</id>
            <isCriticalSystemObject>false</isCriticalSystemObject>
            <name>TEST_CHILD_COMPONENT</name>
            <disabled>false</disabled>
        </artifact>
        <propertyBindings>
            <id>90d9651a3684c7f0013684cb28820009</id>
```

```
            <createdOn>2012-04-05T16:16:08.450-07:00</createdOn>
            <updatedOn>2012-04-05T16:16:08.450-07:00</updatedOn>
            <propertyBindingType>
                <name>SOURCE</name>
                <categoryType>
                    <name>PROPERTY_BINDING_TYPE</name>
                                    ...
                </categoryType>
                            ...
            </propertyBindingType>
            <artifact>90d9651a3684c7f0013684c91f8c0004</artifact>
            <artifactPropertyName>SVC_COMPONENT_ID</artifactPropertyName>
        </propertyBindings>
        <scope> ... </scope>
        <valueType> ... </valueType>
        <values>
            <id>90d9651a3684c7f0013684c91f8b0002</id>
            <createdOn>2012-04-05T16:13:55.083-07:00</createdOn>
            <updatedOn>2012-04-05T16:13:55.083-07:00</updatedOn>
            <value>90d9651a3684c7f0013684c91f8c0004</value>
        </values>
        <maxOccurs>0</maxOccurs>
        <minOccurs>0</minOccurs>
        <orderIndex>0</orderIndex>
        <confidential>false</confidential>
        <encrypted>false</encrypted>
        <consumerReadOnly>false</consumerReadOnly>
        <consumerVisible>false</consumerVisible>
    </property>
    <property> ... </property>
    <property> ... </property>
</Properties>
```

The following URL was used to retrieve a single property:

```
https://<host>:<port>/csa/rest/artifact/<id>/resolveProperties?
userIdentifier=<user_id>&propertyName=PARENT_SVC_COMPONENT_ID
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Properties>
    <property>
        <id>90d9651a3684c7f0013684cafda80005</id>
        <name>PARENT_SVC_COMPONENT_ID</name>
         ...
    </property>
</Properties>
```

List active groups associated with an organization

Details

URI	`/artifact/<organization_id>/group`
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d02fb7e013d0308891d0003/group?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<GroupList>
  <count>1</count>
  <limit>1</limit>
  <group>
    <id>8a81818f3d02fb7e013d030af854000f</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>sc_February 22, 2013 5:54:43 PM UTC</name>
    <displayName>ServiceConsumer1</displayName>
    <state>...</state>
    <artifactType>...</artifactType>
    <disabled>false</disabled>
    <distinguishedName>
      cn=ServiceConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      ...
    </role>
  </group>
</GroupList>
```

Add groups to an organization

Details

URI	`/artifact/<organization_id>/group`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Note that the role must be specified for each group in the request body. Valid roles are as follows. For Consumer type organizations:

- SERVICE_CONSUMER

For Provider type organizations:

- CONSUMER_SERVICE_ADMINISTRATOR
- SERVICE_BUSINESS_MANAGER
- SERVICE_DESIGNER
- CSA_ADMIN
- RESOURCE_SUPPLY_MANAGER
- SERVICE_OPERATIONS_MANAGER

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d1421e7013d1423635a0003/group?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent:

```
<GroupList>
  <group>
    <displayName>My-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <name>SERVICE_CONSUMER</name>
    </role>
  </group>
```

```
  <group>
    <displayName>Another-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer2,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <name>SERVICE_CONSUMER</name>
    </role>
  </group>
 </GroupList>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<GroupList>
  <count>2</count>
  <limit>2</limit>
  <group>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>My-Group-Name</name>
    <displayName>My-Group-Name</displayName>
    <disabled>false</disabled>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>SERVICE_CONSUMER</name>
      <disabled>false</disabled>
    </role>
  </group>
  <group>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>Another-Group-Name</name>
    <displayName>Another-Group-Name</displayName>
    <disabled>false</disabled>
    <distinguishedName>
      cn=TestConsumer2,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
    <role>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>SERVICE_CONSUMER</name>
      <disabled>false</disabled>
    </role>
  </group>
</GroupList>
```

Update group display name, distinguished name

Use this /artifact URI to update the group display name and/or distinguised name for the specified organization.

Details

URI	`/artifact/<organization_id>/group/<group_id>`
Method	PUT
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d02fb7e013d0308891d0003group/8a81818f3d1437e2013d1795d41107ea?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent:

```
<GroupList>
  <group>
    <displayName>My-New-Group-Name</displayName>
    <distinguishedName>
      cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
    </distinguishedName>
  </group>
</GroupList>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Group>
  <id>8a81818f3d1437e2013d1795d41107ea</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <name>sc_February 22, 2013 5:54:43 PM UTC</name>
  <displayName>My-New-Group-Name</displayName>
  <state>
    <id>90d96588360da0c701360da0ef470038</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>ACTIVE</name>
```

```
    <disabled>false</disabled>
  </state>
  <artifactType>
    <id>90d96588360da0c701360da0eeff002b</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>GROUP</name>
    <disabled>false</disabled>
  </artifactType>
  <disabled>false</disabled>
  <distinguishedName>
    cn=TestConsumer,ou=ConsumerGroup,ou=CSAGroups
  </distinguishedName>
</Group>
```

Delete or disassociate group from an organization

Use this URI to delete a group or to disassociate it from an organization. If no organization is associated with this group, the group will be deleted. Otherwise, the group will be disassociated from the specified organization.

Details

URI	`/artifact/<organization_id>/group/<group_id>`
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/8a81818f3d1421e7013d1423635a0003/group/8a81818f3d1437e2013d1795d41107ea?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<messageList>
  <messages>Removed role association for My-New-Group-Name</messages>
</messageList>
```

List resource providers

Details

URI	`/artifact`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`artifactType=RESOURCE_PROVIDER`
	Required; the only valid value is *RESOURCE_PROVIDER*. Basic view information is provided in the return content.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact?userIdentifier=
90d96588360da0c701360da0f1d5f483&artifactType=RESOURCE_PROVIDER
```

The following XML was returned in the response:

```
<ResourceProviderList>
  <count>3</count>
  <limit>0</limit>
  <resourceProvider>
    <id>90e72e583d4c6e77013d4c96b1ab0010</id>
    <objectId>90e72e583d4c6e77013d4c96b1ab0010</objectId>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>Sitescope A</description>
    <name>Sitescope_A_March 9, 2013 12:39:36 AM UTC</name>
    <displayName>Sitescope A</displayName>
    <disabled>false</disabled>
  </resourceProvider>
  ...
</ResourceProviderList>
```

Add document to service offering

Details

URI	`/artifact/<service_offering_id>/document`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent with headers:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

```
https://<host>:<port>/csa/rest/artifact/90cef5de3c63429f013c68b8cdda0bad/document?userIdentifier=90cef5de3c63429f013c642c7fc708ab
```

To better demonstrate how to use this REST API URI, the following a python script attaches a text file to a service offering. The script was created based on HTML documentation. You can find information on html form content types at: http://www.w3.org/TR/html401/interact/forms.html#h-17.13.4.2.

```
""" Sample python script that attaches a text file in the current directory to
an ACTIVE CSA service offering on a local host, with default credentials.
Script usage:
    <scrip-name.py> <service offering uuid> <filename> <admin uuid>
The following example attaches file doc.txt to the service offering with id 90ce
c0773c83a11a013c871e4c1a0503 using an admin user ID
90d96588360da0c701360da0f1d5f483
post-doc.py 90cec0773c83a11a013c871e4c1a0503 doc.txt 90d96588360da0c701360da0f1d
5f483
Tested with: ActivePython 3.2.2.3
"""
from xml.dom.minidom import parse, parseString
from http.client import HTTPSConnection
from base64 import b64encode
import mimetypes
```

```
import sys
def get_content_type(filename):
    return mimetypes.guess_type(filename)[0] or 'application/octet-stream'
def get_file_contents(filename):
    CRLF = '\r\n'
    f = open(filename, 'r')
    return CRLF.join(f.readlines())
def encode_multipart_formdata(filename):
    BOUNDARY = '----------CSA_r0ck$_$'
    CRLF = '\r\n'
    L = []
    L.append('--' + BOUNDARY)
    L.append('Content-Disposition: form-data; name="file"; filename="%s"' % file
name)
    L.append('Content-Type: %s' % get_content_type(filename))
    L.append('')
    L.append(get_file_contents(filename))
    L.append('--' + BOUNDARY + '--')
    L.append('')
    body = CRLF.join(L)
    content_type = 'multipart/form-data; boundary=%s' % BOUNDARY
    return content_type, body
def addDocumentToOffering(offeringId, documentName, userId):
    conn = HTTPSConnection("localhost:8444")
    userAndPass = b64encode(b"csaTransportUser:csaTransportUser").decode("asci
i")
    post_url = "/csa/rest/artifact/" + offeringId + "/document?userIdentifier="+
userId
    content_type, body = encode_multipart_formdata(documentName)
    content_length =  str(len(body))
    headers = {'Authorization' : 'Basic %s' %  userAndPass,
               'Content-Type' :'%s' % content_type, 'content-length' : str(len(b
ody)), 'Accept' : 'application/xml'}
    conn.request('POST', post_url, body, headers=headers)
    res = conn.getresponse()
    data = res.read()
    print(data)
def main(offeringId, documentName, userId):
    addDocumentToOffering(offeringId, documentName, userId)
if __name__ == "__main__":
    offeringId = sys.argv[1]
    documentName = sys.argv[2]
    userId = sys.argv[3]
    main(offeringId, documentName, userId)
```

Delete document from service offering

Details

URI	`/artifact/<service_offering_id>/document/<document_id>`
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90cef5de3c63429f013c68b8cdda0bad/document/90cef5de3c63429f013c68b8cdda0bad?userIdentifier=90cef5de3c63429f013c642c7fc708ab
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Document>
    <id>90cef5de3c63429f013c68d4146a0bce</id>
    <isCriticalSystemObject> false </isCriticalSystemObject>
    <name>Example Offering Doc.txt</name>
    <state>
        ...
    </state>
    <artifactType>
        ...
    </artifactType>
    <disabled>false</disabled>
    <url>/csa//document/download?id=90cef5de3c63429f013c68d4146a0bce</url>
    <content>Sample Doc Content</content>
    <mimeType>application/octet-stream</mimeType>
    <documentType>
       ...
    </documentType>
</Document>
```

Update document in service offering

Details

URI	`/artifact/<service_offering_id>/document/<document_id>`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent with headers:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

```
https://<host>:<port>/csa/rest/artifact/90cec0123ae20db2013ae2111e3e000a/document/90cec0123afffe57013afffec64f0001?userIdentifier=90d96588360da0c701360da0f1d5f483
```

See "Add document to service offering" on page 28 for a more detailed example.

Publish service offerings to catalog

Details

URI	`/artifact/<catlog_id>/publish`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e323b5330cc013b5358c0940021/publish
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CatalogItems>
  <catalogItem>
    <artifactContext>
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType>
        <name>ARTIFACT_TYPE</name>
      </categoryType>
    </artifactContextType>
    <category>
      <name>CRM</name>
      <categoryType>
        <name>CATALOG_CATEGORY</name>
      </categoryType>
    </category>
  </catalogItem>
  <catalogItem>
    <artifactContext>
      <name>OFFERING2_January 28, 2013 11:32:17 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType>
        <name>ARTIFACT_TYPE</name>
      </categoryType>
    </artifactContextType>
    <category>
      <name>ACCESSORY</name>
      <categoryType>
        <name>CATALOG_CATEGORY</name>
      </categoryType>
    </category>
  </catalogItem>
  <catalogItem>
    <artifactContext>
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC </name>
    </artifactContext>
```

```
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType>
        <name>ARTIFACT_TYPE</name>
      </categoryType>
    </artifactContextType>
    <category>
      <name>AABBCCDD</name>
      <displayName>AABBCCDD</displayName>
      <categoryType>
        <name>CATALOG_CATEGORY</name>
      </categoryType>
    </category>
  </catalogItem>
</CatalogItems>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<messageList>
  <messages> Publish OFFERING1_January 30, 2013 6:18:47 PM UTC to category AABBC
CDD failed. Category doesn't exist.</messages>
  <messages> Publish OFFERING2_January 28, 2013 11:32:17 PM UTC to category ACCE
SSORY succeeded.</messages>
  <messages> Publish OFFERING1_January 30, 2013 6:18:47 PM UTC to category CRM s
ucceeded.</messages>
</messageList>
```

Unpublish service offerings from catalog

Details

URI	`/artifact/<catlog_id>/unpublish`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/90e72e323b5330cc013b5358c0940021/unpubli
sh?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<CatalogItems>
  <catalogItem>
    <artifactContext>
      <name>OFFERING1_January 30, 2013 6:18:47 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType><name>ARTIFACT_TYPE</name></categoryType>
    </artifactContextType>
    <category>
      <name>CRM</name>
      <categoryType>
        <name>CATALOG_CATEGORY</name>
      </categoryType>
    </category>
  </catalogItem>
  <catalogItem>
    <artifactContext>
      <name>OFFERING2_January 28, 2013 11:32:17 PM UTC</name>
    </artifactContext>
    <artifactContextType>
      <name>SERVICE_OFFERING</name>
      <categoryType><name>ARTIFACT_TYPE</name></categoryType>
    </artifactContextType>
    <category>
      <name>AABBCCDD</name>
      <displayName>AABBCCDD</displayName>
      <categoryType><name>CATALOG_CATEGORY</name></categoryType>
    </category>
  </catalogItem>
</CatalogItems>
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<messageList>
  <messages> Unpublish Service Offering OFFERING1_January 30, 2013 6:18:47 PM UT
C from category CRM succeeded.</messages>
  <messages> Unpublish Service Offering OFFERING2_January 28, 2013 11:32:17 PM U
TC from category AABBCCDD failed. Category doesn't exist.</messages>
</messageList>
```

Retrieve artifact state and status

Details

URI	`/artifact/state/<artifact_id>`
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Request Body	None
Return Body	ArtifactStateInfo
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

For all artifacts, possible values for the returned artifactState are:

- ACTIVE
- RETIRED

The following state and status information will be returned for specific artifact types.

For service instance artifacts, state will be returned and will contain one of the following values:

- ACTIVE
- CANCELLED
- CANCELLING
- CANCEL_FAILED
- DEPLOYING
- EXPIRE_FAILED
- EXPIRING
- FAILED
- MODIFYING
- MODIFY_FAILED
- IN_PROGRESS
- PUBLIC_ACTION_FAILED
- RESERVED

For service request artifacts:

- State will be returned and will contain one of the following values:
  - APPROVED
  - CANCELLED
  - COMPLETED
  - IN_PROGRESS
  - PENDING_APPROVAL
  - REJECTED
  - SUBMITTED

- Status will be returned. If no value was set a null value will be returned. Otherwise it will contain one of the following values:
  - FAILURE
  - SUCCESS

For service subscription artifacts, status will be returned and will contain one of the following values:

- ACTIVE
- CANCELLED
- EXPIRED
- PAUSED
- PENDING
- TERMINATED

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/artifact/state/90e72e323ad23bd6013ad23f63da0016?u
serIdentifier=90d96588360da0c701360da0f1d5f483
```

The following JSON was returned in the response body:

```
{
  "id": "90e72e323fe4c9ae013fe4def98a0125",
  "artifactType": "SERVICE_INSTANCE",
  "artifactState": "ACTIVE""state": "FAILED"
  "status":null>
}
```

Artifact views

Artifact views provide a convenient way to perform retrieve or update actions. When views are used with artifact GET and fastview GET requests, the response includes only the relevant information depending on the type of view requested. When used with PUT requests, the body of the request can include just relevant information, compared to typical PUT requests.

Advantages of Views

- With GET requests, views retrieve only the relevant data for the artifact and avoid loading all the data for the artifact. This leads to better performance.
- With PUT requests, the burden is not on the user to know all the artifact details to update the artifact. The user can pass only the necessary information.
- An example of using views is presented in "Update an artifact" on page 14 (using componentfinalize view).

Note: If you are updating with artifact views, you need to specify all the view's properties.

The following predefined views are available.

View name	Properties	Description
accesspoint	accessPoint.username accessPoint.password accessPoint.uri accessPoint.category.name	This retrieves information from the access point object. Any entity that has the accessPoint property should work with this view.
actioninfo	action.actionState.name action.actionStatus action.errorOnTimeout action.failOnError action.timeout action.processDefinition.name action.consumerVisible action.stateConstraint.lifecycleState.name action.stateConstraint.lifecycleSubstate.name	Retrieves the properties for the action object in addition to all the basicinfo and propertyinfo properties. Note: If the intention is to update an existing action, then action.id must be specified.

View name	Properties	Description
artifactinfo	state.name artifactType.name disabled ownedBy.name	Retrieves the required properties from an artifact object in addition to all the basicinfo properties.
basicinfo	id name displayName description iconUrl detailedDescription isCriticalSystemObject	Retrieves information from any Identity object. All artifacts and some additional entities (e.g., accessPoint) are identity objects.
candidatepools*	resourceBinding.candidateProvider.candidatePool.id resourceBinding.candidateProvider.candidatePool.objectId resourceBinding.candidateProvider.candidatePool.isCriticalSystemObject resourceBinding.candidateProvider.candidatePool.name resourceBinding.candidateProvider.candidatePool.displayName resourceBinding.candidateProvider.candidatePool.disabled resourceBinding.candidateProvider.candidatePool.useProviderEnv	Use this view to retrieve candidate resource provider pools for a given resource binding.
candidateproviders*	resourceBinding.candidateProvider.resourceProvider.id resourceBinding.candidateProvider.resourceProvider.objectId resourceBinding.candidateProvider.resourceProvider.isCriticalSystemObject resourceBinding.candidateProvider.resourceProvider.name resourceBinding.candidateProvider.resourceProvider.displayName resourceBinding.candidateProvider.resourceProvider.disabled	Use this view to retrieve candidate resource providers for a given resource binding.

View name	Properties	Description
componentchild	componentChild.name componentChild.displayName componentChild.description componentChild.iconUrl componentChild.detailedDescription componentChild.isCriticalSystemObject componentChild.ownedBy.name componentChild.state.name componentChild.artifactType.name componentChild.disabled componentChild.serviceInstance.id componentChild.componentType.name componentChild.lifecycleProperties.lifecycleState.name componentChild.lifecycleProperties.lifecycleSubstate.name componentChild.id	Use this view to add/update service components from the parent service component.
componentfinalize	toFinalize	Use this view to change the finalize flag for a component.
componentlifecycle	lifecycleProperties.lifecycleState.name lifecycleProperties.lifecycleSubstate.name	Use this view to change the lifecycle state and substate for a component.
componentroot	componentRoot.name componentRoot.displayName componentRoot.description componentRoot.iconUrl componentRoot.detailedDescription componentRoot.isCriticalSystemObject componentRoot.ownedBy.name componentRoot.state.name componentRoot.artifactType.name componentRoot.disabled componentRoot.serviceInstance.id componentRoot.componentType.name componentRoot.lifecycleProperties.lifecycleState.name componentRoot.lifecycleProperties.lifecycleSubstate.name componentRoot.id	Use this view to add a root service component to a ServiceBlueprint or a ServiceInstance object.

View name	Properties	Description
disabledesign	ServiceBlueprint.disabled	Use this view to enable or disable a ServiceBlueprint.
propertyinfo	property.name property.values.value property.valueType.name property.consumerVisible property.displayName	Retrieves a list of all the properties. Used for creating new properties.
propertyvalue	property.name property.values.value property.consumerVisible property.displayName	This view is useful if the need is only to update a property value.
resourcebindinginfo	resourceBinding.isCriticalSystemObject resourceBinding.state.name resourceBinding.artifactType.name resourceBinding.disabled resourceBinding.bindingState.name resourceBinding.resourceOffering.name resourceBinding.lifeCycleProperties.lifecycleState.name resourceBinding.lifeCycleProperties.lifecycleSubstate.name resourceBinding.resourceProvider.name	Use this view to create/update a Resource Binding.
validproviders*	resourceBinding.id resourceBinding.validProvider.resourceBinding.id resourceBinding.validProvider.resourceProvider.id	Use this view to retrieve or to update valid resource providers for a given resource binding.

View name	Properties	Description
validproviderspools*	resourceBinding.id resourceBinding.validProvider.resourceBinding.id resourceBinding.validProvider.resourceProvider.id resourceBinding.validProvider.validPool.id	Use this view to update valid resource providers and valid resource provider pools for a given resource binding.

* For the candidatepools, candidateproviders, validproviders and validproviderpools artifact views, while the provider selection is in progress the list of providers will be returned. Once a provider is selected no list will be returned.

Chapter 2: Availablevalues API

Description

Use this API to retrieve the list of available values for a dynamic property.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/availablevalues/<property_id>` *property_id* is an option model property, and is part of service design, offering and subscription artifacts.
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See Get userIdentifier for the steps required to get the userIdentifier value.
Request Body	Ampersand (&) separated name=value pairs, where the value on the left side of the equal sign (=) represents the parameter name configured for a dynamic property, and the value on the right side is the value the user selected from the parent property. For example, a request body might contain: *first=parent1value&countparam=mycount*.
Returns	200 - Ok 400 - Not authorized 404 - Not found 500 - Server exception

Example use context

From the subscriber portal a property is selected from a drop down list. The values of any associated dynamic properties must be spontaneously populated - they are dynamic and therefore cannot be populated in advance.

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/availablevalues/90e763a43ddc18e5013ddc2f134c0088
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following was sent in the request body:

```
first=parent1Value
```

The following response was returned:

```
<Property>
  <id>90e763a43ddc18e5013ddc2f134c0088</id>
  <name>child1</name>
  <displayName>child1</displayName>
  <dynamicValueEnabled>true</dynamicValueEnabled>
  <dynamicScriptName>sample_jsp.jsp</dynamicScriptName>
  <dynamicScriptParameters>
    first=[CLIENT:parent1]
  </dynamicScriptParameters>
  <availableValues>
    <value>value1</value>
    <displayName>value1 displayName</displayName>
    <description>value1 description</description>
  </availableValues>
  ...
</Property>
```

Chapter 3: Catalog API

Description

Use this API to get information related to CSA catalogs.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

Catalog

A catalog is the collection of services available to a consumer.

URI	Method	Parameters	Description
/catalog	GET	userIdentifier, scope, detail	"List catalogs" on page 47
/catalog/<catalog_id>	GET	userIdentifier, scope, detail	"Get catalog details" on page 49

Category

Categories allow you to classify service offerings in a service catalog.

URI	Method	Parameters	Description
/catalog/<catalog_id>/category	POST	userIdentifier	"Create catalog categories" on page 50
/catalog/<catalog_ id>/category/<category_id>	PUT	userIdentifier	"Update catalog categories" on page 52
/catalog/<catalog_ id>/category/<category_id>	DELETE	userIdentifier	"Delete catalog category" on page 53

Offering

An offering allows you to define service designs that are published to a service catalog.

URI	Method	Parameters	Description
/catalog/<catalog_id>/offering	GET	userIdentifier, scope, detail, hasApproval	"List offerings in the catalog" on page 54
/catalog/<catalog_id>/offering/<offering_id>	GET	userIdentifier, scope, detail	"Get offering details" on page 55

Request

A request is created whenever a user initiates, changes, or deletes a subscription.

URI	Method	Parameters	Description
/catalog/<catalog_id>/request	GET	userIdentifier, scope, detail, submitter	"List requests in the catalog" on page 56
/catalog/<catalog_id>/request	POST	userIdentifier	"Submit a request" on page 58
/catalog/<catalog_id>/request/<request_id>	GET	userIdentifier, scope, detail	"Get request details" on page 60
/catalog/<catalog_id>/request/<request_id>/cancel	GET	userIdentifier	"Cancel a request" on page 63
/catalog/<catalog_id>/request/<request_id>	DELETE	userIdentifier	"Retire a request" on page 63

Approval

An approval is created when the approval manager approves a request.

URI	Method	Parameters	Description
/catalog/<catalog_id>/approval	GET	userIdentifier, scope, detail, approver, returnRetired	"List approvals in the catalog" on page 64
/catalog/<catalog_id>/approval/<approval_id>	GET	userIdentifier, scope, detail	"Get approval details" on page 65
/catalog/<catalog_id>/approval/<approval_id>	PUT	userIdentifier	"Update approval decision using an external approval system" on page 65
/catalog/<catalog_id>/approval/<approval_id>	DELETE	userIdentifier	"Retire an approval" on page 75

URI	Method	Parameters	Description
/catalog/<catalog_id>/approval/<approval_id>/approver	PUT	userIdentifier	"Update approval decision using CSA approval process" on page 66

Approval policy

URI	Method	Parameters	Description
/catalog/<catalog_id>/policy/<policy_id>/setCatalogApprovalPolicy	POST	userIdentifier	"Update catalog approval policies" on page 68
/catalog/<catalog_id>/policy/<policy_id>/setSOApprovalPolicy	POST	userIdentifier	"Update service offerings approval policy" on page 69

Subscription

A subscription is created when a consumer requests a service offering and includes all of the options selected by the consumer when the subscription was initiated.

URI	Method	Parameters	Description
/catalog/<catalog_id>/subscription	GET	userIdentifier, scope, detail, requestor	"List subscriptions in the catalog" on page 71
/catalog/<catalog_id>/subscription/<subscription_id>	GET	userIdentifier, scope, detail	"Get subscription details" on page 72

Resource Subscription

URI	Method	Parameters	Description
/catalog/<catalog_id>/resourceSubscription	GET	userIdentifier, scope, detail	"Get resource subscription details" on page 76

Instance

An instance is created when a request is approved and includes details about the requested services such as the status of services, IP addresses, etc.

URI	Method	Parameters	Description
catalog/<catalog_id>/instance	GET	userIdentifier, scope, detail, requestor	"List instances in the catalog" on page 74
catalog/<catalog_id>/instance/<instance_id>	GET	userIdentifier, scope, detail	"Get instance details" on page 75

List catalogs

Details

URI	`/catalog`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *basic*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog
?userIdentifier=90d9652b35f46a930135f35b327e00a0&scope=base&detail=basic
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<CatalogList>
    <count>12</count>
    <limit>0</limit>
    <catalog>
        <id>402895e566cb32ss0136cb831752000f</id>
```

```
        <objectId>402895e566cb32ss0136cb831752000f</objectId>
        <createdOn>2012-04-19T09:23:04.913-06:00</createdOn>
        <updatedOn>2012-04-19T09:23:04.913-06:00</updatedOn>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <description>Default catalog for the organization.</description>
        <name>consumer_catalog_a</name>
        <displayName>Consumer Catalog A</displayName>
        <state>
            <id>90d96588364da0c701370da0ss320037</id>
            <objectId>90d96588364da0c701370da0ss320037</objectId>
            <createdOn>2012-04-19T09:22:25.943-06:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Active</description>
            <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
            <name>ACTIVE</name>
            <displayName>Active</displayName>
            <disabled>false</disabled>
            <categoryType>
                <id>90d96588364da0c701370da0ss320038</id>
                <objectId>90d96588364da0c701370da0ss320038</objectId>
                <isCriticalSystemObject>true</isCriticalSystemObject>
                <name>ARTIFACT_STATE</name>
                <displayName>Artifact State</displayName>
                <extensible>false</extensible>
            </categoryType>
        </state>
        <artifactType>
            <id>90d96588364da0c701370da0ss320039</id>
            <objectId>90d96588364da0c701370da0ss320039</objectId>
            <createdOn>2012-04-19T09:22:26.050-06:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Catalog</description>
            <iconUrl>/csa/images/categories/artifact_type/catalog.png</iconUrl>
            <name>CATALOG</name>
            <displayName>Catalog</displayName>
            <disabled>false</disabled>
            <categoryType>
                <id>90d96588364da0c701370da0ss320030</id>
                <objectId>90d96588364da0c701370da0ss320030</objectId>
                <isCriticalSystemObject>true</isCriticalSystemObject>
                <name>ARTIFACT_TYPE</name>
                <displayName>Artifact Type</displayName>
                <extensible>false</extensible>
            </categoryType>
        </artifactType>
        <disabled>false</disabled>
    </catalog>
    <catalog>
    ...
```

```
    </catalog>
...
</CatalogList>
```

Get catalog details

Details

URI	`/catalog/<catalog_id>` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/402895e566cb32ss0136cb831752000f
?userIdentifier=90d9652b35f46a930135f35b327e00a0&scope=base&detail=required
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Catalog>
    <id>402895e345cb67dd0136ss331752000f</id>
    <objectId>402895e345cb67dd0136ss331752000f</objectId>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>Catalog_Consumer_A</name>
    <displayName>Consumer Catalog A</displayName>
    <state>
```

```
            <id>90d96567360da0c701360ss0ef470038</id>
            <objectId>90d96567360da0c701360ss0ef470038</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>ACTIVE</name>
            <displayName>Active</displayName>
            <disabled>false</disabled>
            <categoryType>
                <id>90d67588360da0c701360ss0ef420037</id>
                <objectId>90d67588360da0c701360ss0ef420037</objectId>
                <isCriticalSystemObject>true</isCriticalSystemObject>
                <name>ARTIFACT_STATE</name>
                <displayName>Artifact State</displayName>
                <extensible>false</extensible>
            </categoryType>
        </state>
        <artifactType>
            <id>90d96586760da0c701360da0ssd2001d</id>
            <objectId>90d96586760da0c701360da0ssd2001d</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>CATALOG</name>
            <displayName>Catalog</displayName>
            <disabled>false</disabled>
            <categoryType>
                <id>90d67588360da0c701360da0ssb40017</id>
                <objectId>90d67588360da0c701360da0ssb40017</objectId>
                <isCriticalSystemObject>true</isCriticalSystemObject>
                <name>ARTIFACT_TYPE</name>
                <displayName>Artifact Type</displayName>
                <extensible>false</extensible>
            </categoryType>
        </artifactType>
        <disabled>false</disabled>
    </Catalog>
```

Create catalog categories

Details

URI	`/catalog/<catalog_id>/category`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.

URI	/catalog/<catalog_id>/category
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

In the request body:

- Any category specified in the request body that already exists will be left unchanged.
- displayName is required.
- iconUrl and description are optional, and will be set to null if not specified.

Example

The following URL was sent to create an approval policy with two named approvers:

```
https://<host>:<port>/csa/rest/catalog/90e72e323c88421f013c8d7fad120076/category
 ?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<Catalog>
  <catalogCategory>
    <displayName>Example first Catalog Category</displayName>
    <iconUrl>/catalog/category/x.png</iconUrl>
    <description>description for catalog category</description>
  </catalogCategory>
  <catalogCategory>
      <displayName>Example second category</displayName>
  </catalogCategory>
</Catalog>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Catalog>
  <id>8a81818f3d02fb7e013d0308894a0004</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>Default catalog for the organization.</description>
  <iconUrl>
    /csa/images/library/briefcase-consumer_default_img-60.png
  </iconUrl>
  <name>Catalog_QA_ORG</name>
  <displayName>QA Org Catalog</displayName>
  ...
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5d3000e</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
```

```
    <name>EXAMPLE_SECOND_CATEGORY</name>
    <displayName>Example second category</displayName>
    <disabled>false</disabled>
  </catalogCategory>
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5c6000d</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>description for catalog category</description>
    <iconUrl>/catalog/category/x.png</iconUrl>
    <name>EXAMPLE_FIRST_CATALOG_CATEGORY</name>
    <displayName>Example first Catalog Category</displayName>
    <disabled>false</disabled>
  </catalogCategory>
  <catalogCategory> ... </catalogCategory>
  ...
</Catalog>
```

Update catalog categories

Details

URI	`/catalog/<catalog_id>/category/<category_id>`
Method	PUT
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for details on categories updated.) 401 - Not authorized 404 - Object not found 500 - Server exception

Note that any CatalogCategory elements not specified in the request body will be left unchanged.

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d02fb7e013d0308894a0004/
category/8a81818f3d128500013d1341a5c6000d
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<CatalogCategory>
  <displayName>Changing first example category name</displayName>
  <iconUrl>/catalog/category/x.png</iconUrl>
  <description>New description for first example category</description>
</CatalogCategory>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Catalog>
  <id>8a81818f3d02fb7e013d0308894a0004</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <description>Default catalog for the organization.</description>
  <iconUrl>
    /csa/images/library/briefcase-consumer_default_img-60.png
  </iconUrl>
  <name>Catalog_QA_ORG</name>
  <displayName>QA Org Catalog</displayName>
  ...
  <catalogCategory> ... </catalogCategory>
  ...
  <catalogCategory>
    <id>8a81818f3d128500013d1341a5c6000d</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>description for catalog category</description>
    <iconUrl>/catalog/category/x.png</iconUrl>
    <name>CHANGING_FIRST_EXAMPLE_CATEGORY_NAME</name>
    <displayName>Changing first example category name</displayName>
    <disabled>false</disabled>
  </catalogCategory>
  ...
</Catalog>
```

Delete catalog category

Details

URI	`/catalog/<catalog_id>/category/<category_id>`
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for details on category deleted.) 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d02fb7e013d0308894a0004/
category/8a81818f3d128500013d1341a5c6000d
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The XML return content is basic catalog information as returned with the POST and PUT methods and most notably, will not include the category just deleted.

List offerings in the catalog

Details

URI	`/catalog/<catalog_id>/offering` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`hasApproval=[true|false]`
	Optional; default is *false*. If *true*, then hasApproval attribute is returned. If *false*, then the attribute is not returned.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent to get a list of offerings in a catalog using the default values for scope (base) and detail (basic):

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006boffering?
userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceOfferingList>
  <count>3</count>
  <limit>0</limit>
  <ServiceOffering
    <id>90e763db3dd1a9a4013dd1e16aa16c95</id>
    <objectId>90e763db3dd1a9a4013dd1e16aa16c95</objectId>
    <createdOn>2013-04-03T14:50:43.873-07:00</createdOn>
    <updatedOn>2013-04-03T14:50:43.873-07:00</updatedOn>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>3 Level Option for testing service offerings Integration Servic
e Offering</description>
    </artifactType>
    <serviceBlueprint>
    <detailedDescription>3 Level Option for testing service offerings Integratio
n Service Offering</detailedDescription>
    <iconUrl>/csa/images/library/compliance.png</iconUrl>
    <name>ServiceOffering for ApprovalPolicy</name>
    <displayName>ServiceOffering for ApprovalPolicy</displayName>
    <state> … </state>
    <artifactType> … </artifactType>
    <disabled>false</disabled>
    <offeringState> … </offeringState>
  </ServiceOffering>
  <ServiceOffering> … </ServiceOffering>
  <ServiceOffering> … </ServiceOffering>
</ServiceOfferingList>
```

Get offering details

Details

URI	`/catalog/<catalog_id>/offering/<offering_id>` Use "Catalog API" on page 44 to get the catalog ID and "List offerings in the catalog" on the previous page to get the offering ID.
Method	GET

URI	`/catalog/<catalog_id>/offering/<offering_id>` Use "Catalog API" on page 44 to get the catalog ID and "List offerings in the catalog" on the previous page to get the offering ID.

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
offering/402895e337326d300137327ce1e30074
?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceOffering>
    <id>402895e337326d300137327ce1e30074</id>
    <objectId>402895e337326d300137327ce1e30074</objectId>
    <createdOn>2012-05-09T10:44:34.147-06:00</createdOn>
    <updatedOn>2012-05-09T11:48:26.170-06:00</updatedOn>
        ...
</ServiceOffering>
```

List requests in the catalog

Deprecation Notice

The GET /catalog/<catalog_id>/request URI has been deprecated. Use URI /user/myrequest instead as using the deprecated URI will not allow viewing requests created by users who previously had access to the catalog, but no longer have access.

Details

URI	`/catalog/<catalog_id>/request` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	`scope=[base|view]`
	Optional; default is *base*.
	`detail=basic`
	Optional; The only valid value is *basic*.
	`submitter=<user_name>`
	Required; user name must be valid and must be authorized to view the request.
	`returnRetired=[true|false]`
	Optional; default is *false*.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://localhost:8444/csa/rest/catalog/8a8181853810699a0138106dcebc0011/reques
t/ ?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned in the response:

```
<ServiceRequestList>
   <count>21</count>
   <limit>0</limit>
   <ServiceRequest>
      <id>8a8181853810699a01381079190800a7</id>
      <objectId>8a8181853810699a01381079190800a7</objectId>
      <createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
      <updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <description>SD2 Offering</description>
      <detailedDescription>desc - SD2 offering</detailedDescription>
      <iconUrl>/csa/images/library/application.png</iconUrl>
      <name>request 1</name>
```

```
      <displayName>request 1</displayName>
      <state>
         <id>90d96588360da0c701360da0ef470038</id>
         <objectId>90d96588360da0c701360da0ef470038</objectId>
         <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <description>Active</description>
         <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
         <name>ACTIVE</name>
         <displayName>Active</displayName>
         <disabled>false</disabled>
         <categoryType>
            <id>90d96588360da0c701360da0ef420037</id>
            <objectId>90d96588360da0c701360da0ef420037</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>ARTIFACT_STATE</name>
            <displayName>Artifact State</displayName>
            <extensible>false</extensible>
         </categoryType>
      </state>
      ...
   </ServiceRequest>
</ServiceRequestList>
```

Submit a request

Details

URI	`/catalog/<catalog_id>/request` Use "List catalogs" on page 47 to get the catalog ID.
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/request
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<ServiceRequest>
    <description>description - request BE </description>
    <name>Request BE - Order server</name>
    <displayName>Request BE</displayName>
    <artifactContext>
        <id>8a8181853824bc1d013824c3ae350078</id>
    </artifactContext>
    <requestedAction>
        <name>ORDER</name>
        <property>
            <name>START_DATE</name>
            <values>
                <value>2012-06-26T10:58:58.233-08:00</value>
            </values>
        </property>
        <property>
            <name>END_DATE</name>
            <values>
                <value>2012-06-30T10:58:58.233-08:00</value>
            </values>
        </property>
        <property>
            <name>SERVICE_NAME</name>
            <values>
                <value>SERVICE_NAME - request BE</value>
            </values>
        </property>
        <property>
            <name>SERVICE_DESCRIPTION</name>
            <values>
                <value>service_desc request BE</value>
            </values>
        </property>
        <property>
            <name>OPTION_MODEL</name>
            <values>
                <optionModel>
                    <name>SD2</name>
                    <optionSets>
                        <name>42FBA7E6-17EF-7B1A-C4DD-0A5CB0246E55</name>
                        <options>
                            <name>D914556A-6F6A-1BE0-035E-0A5CB021BE9B</name>
                            <property>
                                <name>INT</name>
                                <values>
```

```
                                <value>33</value>
                            </values>
                        </property>
                        <property>
                            <name>BOOLEAN</name>
                            <values>
                                <value>true</value>
                            </values>
                        </property>
                        <property>
                            <name>STR</name>
                            <values>
                                <value>YY</value>
                            </values>
                        </property>
                    </options>
                </optionSets>
                <optionSets>
                    <name>D6A80E16-2977-4111-14B9-0A5E5D5B2F56</name>
                    <options>
                        <name>18CA9979-7C9D-F5AC-06B5-0A5E5D5B3B51</name>
                    </options>
                </optionSets>
            </optionModel>
        </values>
    </property>
</requestedAction>
</ServiceRequest>
```

The following XML was returned in the response:

```
<ServiceRequest>
    <id>8a818185382a26cc01382abf331c037e</id>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <disabled>false</disabled>
</ServiceRequest>
```

Get request details

Details

URI	`/catalog/<catalog_id>/request/<request_id>` Use "Catalog API" on page 44 to get the catalog ID and "List requests in the catalog" on page 56 to get the request ID.
Method	GET

URI	`/catalog/<catalog_id>/request/<request_id>` Use "Catalog API" on page 44 to get the catalog ID and "List requests in the catalog" on page 56 to get the request ID.

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	201 - Ok, object returned 401 - Not authorized 404 - Not found 500 - Server exception

Example

The following URL was sent:

```
https://localhost:8444/csa/rest/catalog/8a8181853810699a0138106dcebc0011/request
/8a8181853810699a01381079190800a7/
?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned:

```
<ServiceRequest>
   <id>8a8181853810699a01381079190800a7</id>
   <objectId>8a8181853810699a01381079190800a7</objectId>
   <createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
   <updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
   <createdBy>
      <id>8a8181853810699a01381076be5400a0</id>
      <objectId>8a8181853810699a01381076be5400a0</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>consumer1</name>
      <disabled>false</disabled>
   </createdBy>
   <updatedBy>
      <id>90d96588360da0c701360da0f1d5f483</id>
      <objectId>90d96588360da0c701360da0f1d5f483</objectId>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <name>admin</name>
```

```
      <displayName>admin</displayName>
      <disabled>false</disabled>
   </updatedBy>
   <isCriticalSystemObject>false</isCriticalSystemObject>
   <description>SD2 Offering</description>
   <detailedDescription>desc - SD2 offering</detailedDescription>
   <iconUrl>/csa/images/library/application.png</iconUrl>
   <name>request 1</name>
   <displayName>request 1</displayName>
   <catalogItem>
      <id>8a8181853810699a01381079202c00d7</id>
      <createdOn>2012-06-21T12:16:09.900-07:00</createdOn>
      <updatedOn>2012-06-21T12:16:09.900-07:00</updatedOn>
      <createdBy>
         <id>8a8181853810699a01381076be5400a0</id>
         <objectId>8a8181853810699a01381076be5400a0</objectId>
         <isCriticalSystemObject>false</isCriticalSystemObject>
         <name>consumer1</name>
         <disabled>false</disabled>
      </createdBy>
      ...
      <priceCategory>
         <id>90d9650a36897af90136897bc93e0016</id>
         <objectId>90d9650a36897af90136897bc93e0016</objectId>
         <createdOn>2012-06-21T11:51:43.633-07:00</createdOn>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <description>SETUP</description>
         <iconUrl>/csa/images/categories/price/setup.png</iconUrl>
         <name>SETUP</name>
         <displayName>SETUP</displayName>
         <disabled>false</disabled>
         <categoryType>
            <id>90d9650a36897af90136897bc7c70014</id>
            <objectId>90d9650a36897af90136897bc7c70014</objectId>
            <isCriticalSystemObject>false</isCriticalSystemObject>
            <name>PRICE_CATEGORY</name>
            <displayName>Price Category</displayName>
            <extensible>false</extensible>
         </categoryType>
      </priceCategory>
      <fixedPrice>3000.0</fixedPrice>
      <unitPrice>0.0</unitPrice>
   </basePrice>
</ServiceRequest>
```

Cancel a request

Details

URI	`/catalog/<catalog_id>/request/<request_id>/cancel` Use "Catalog API" on page 44 to get the catalog ID and "List requests in the catalog" on page 56 to get the request ID.
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Retire a request

Details

URI	`/catalog/<calalog_id>/request/<request_id>` Use "Catalog API" on page 44 to get the catalog ID and "List requests in the catalog" on page 56 to get the request ID.
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

List approvals in the catalog

Deprecation Notice

The GET /catalog/<catalog_id>/approval URI has been deprecated. Use URI /user/myapproval instead as using the deprecated URI will not allow access to new functionality including the ability to list all approvals from all catalogs for a specified approver.

Details

URI	`/catalog/<catalog_id>/approval` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree|view]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned. If the value is *view*, then the view parameter is required.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *basic*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.
	
	`approver=<user_name>`
	Optional; the name of the approver.
	
	`returnRetired=[true|false]`
	Optional; default is *false*.
	
	Caution: The users specified by `userIdentifier`and `approver`must be in the same organization.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Get approval details

Details

URI	`/catalog/<calalog_id>/approval/<approval_id>` Use "Catalog API" on page 44 to get the catalog ID and "List requests in the catalog" on page 56 to get the approval ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Update approval decision using an external approval system

Details

URI	`/catalog/<calalog_id>/approval/<approval_id>` Use "Catalog API" on page 44 to get the catalog ID and "List approvals in the catalog" on the previous page to get the approval ID.
Method	PUT
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.

URI	`/catalog/<calalog_id>/approval/<approval_id>` Use "Catalog API" on page 44 to get the catalog ID and "List approvals in the catalog" on the previous page to get the approval ID.
Body	ApprovalProcess instance required in request body.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

The following URL was sent to approve a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/
approval/65920b6356n204770943t567ss2r1503
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<ApprovalProcess>
    <approvalResult>
        <name>APPROVED</name>
    </approvalResult>
</ApprovalProcess>
```

The following URL was sent to reject a subscription request:

```
https://<host>:<port>/csa/rest/catalog/
```

The following XML was sent in the request:

```
<ApprovalProcess>
    <approvalResult>
        <name>REJECTED</name>
    </approvalResult>
    <approvalComment>comment</approvalComment>
</ApprovalProcess>
```

Update approval decision using CSA approval process

Details

URI	`/catalog/<calalog_id>/approval/<approval_id>/approver` Use "Catalog API" on page 44 to get the catalog ID and "List approvals in the catalog" on page 64 to get the approval ID.
Method	PUT

URI	`/catalog/<calalog_id>/approval/<approval_id>/approver` Use "Catalog API" on page 44 to get the catalog ID and "List approvals in the catalog" on page 64 to get the approval ID.
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Body	ApprovalProcess instance required in request body.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

The following URL was sent to approve a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/
approval/65920b6356n204770943t567ss2r1503/approver
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Approver>
    <person>
        <userName>approver0@hp.com</userName>
        <organization>
            <name>CSA_CONSUMER</name>
        </organization>
    </person>
    <approverResult>
        <name>APPROVED</name>
    </approverResult>
</Approver>
```

The following URL was sent to reject a subscription request:

```
https://<host>:<port>/csa/rest/catalog/90540a9734f502880134f502c82e0011/
approval/65920b6356n204770943t567ss2r1503/approver
?userIdentifier=90d9667ss5f46a930135f35b327e00a0
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Approver>
    <person>
        <userName>approver0@hp.com</userName>
```

```
        <organization>
            <name>CSA_CONSUMER</name>
        </organization>
    </person>
    <approverResult>
        <name>REJECTED</name>
    </approverResult>
    <approvalComment>comment</approvalComment>
</Approver>
```

Update catalog approval policies

Use this API to associate an approval policy with the specified catalog.

Details

URI	`/catalog/<calalog_id>/policy/<policy_id>/setCatalogApprovalPolicy` Use "Catalog API" on page 44 to get the catalog ID. Use "List organization's approval policies" on page 105 to get an organization's approval policy IDs.
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Response Body	The response body will be an ApprovalPolicyVO of base/full.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d4251ed013d46c2b7f602bc/
policy/8a81818f3d4251ed013d4259f57c0008/setCatalogApprovalPolicy?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ApprovalPolicyList>
  <count>2</count>
  <limit>0</limit>
  <approvalPolicy>
```

```
    <id>8a81818f3d4251ed013d46cc859002c1</id>
    ...
    <approvalTemplate xsi:type="namedApproverApprovalTemplateVO">
     <id>8a81818f3d4251ed013d46cc31ed02be</id>
      <name>EXAMPLE_APPROVAL_POLICY_March 7, 2013 9:40:19 PM UTC </name>
      ...
      <automaticApproval>false</automaticApproval>
      <automaticPeriodDuration>0</automaticPeriodDuration>
      <minApprovalRequired>0</minApprovalRequired>
      <approvalLevel>1</approvalLevel>
    </approvalTemplate>
    ...
    <catalog>
      <id>8a81818f3d4251ed013d46c2b7f602bc</id>
      ...
      <name>SOFTWARE_CATALOG</name>
      ...
    </catalog>
  </approvalPolicy>
  <approvalPolicy>
    <id>8a81818f3d4251ed013d46cc85e402c2</id>
      ...
    <approvalTemplate>
      ...
      <name>USER_CONTEXT_APPROVAL_TEMPLATE_QAORG</name>
      ...
      <automaticApproval>false</automaticApproval>
      <automaticPeriodDuration>0</automaticPeriodDuration>
      <minApprovalRequired>0</minApprovalRequired>
      <approvalLevel>1</approvalLevel>
    </approvalTemplate>
    ...>
    <catalog>
      <id>8a81818f3d4251ed013d46c2b7f602bc</id>
      ...
      <name>SOFTWARE_CATALOG</name>
      ...
    </catalog>
  </approvalPolicy>
</ApprovalPolicyList>
```

Update service offerings approval policy

Use this API to update the approval policy for multiple service offerings published in the specified catalog.

Details

URI	`/catalog/<calalog_id>/policy/<policy_id>/setSOApprovalPolicy` Use "Catalog API" on page 44 to get the catalog ID. Use "List offerings in the catalog" on page 54 to get a catalog's service offering IDs, and "Get offering details" on page 55 to get a service offering's policy ID.
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Request Body	The request body contains the list of service offering IDs that are to be updated.
Response Body	The response body will be a MessageListVO with success and failure messages.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/8a81818f3d4251ed013d46c2b7f602bc/
policy/8a81818f3d4251ed013d46cc8590012c/setSOApprovalPolicy?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request body:

```
<ServiceOfferingList>
  <ServiceOffering>
    <id>8a81818f3d4251ed013d427c75e5005d<id>
  </ServiceOffering>
  <ServiceOffering>
    <id>8a81818f3d4251ed013d427c75e127c3<id>
  </ServiceOffering>
  <ServiceOffering>
    <id>12345<id>
  </ServiceOffering>
</ServiceOfferingList>
```

The following XML was returned:

```
<messageList>
  <messages>Updated approval policy of action of ORDER for service offering with
id 8a81818f3d4251ed013d427c75e5005d </messages>
  <messages>Updated approval policy of action of MODIFY_SUBCRIPTION for service
offering with id 8a81818f3d4251ed013d427c75e127c3</messages>
  <messages>Failed to set approval policy for service offering with id 12345. Th
e service offering is not found. </messages>
</messageList>
```

List subscriptions in the catalog

Deprecation Notice

The GET /catalog/<catalog_id>/subscription URI has been deprecated. Use URI /user/mysubscription instead as using the deprecated URI will not allow viewing subscriptions created by users who previously had access to the catalog, but no longer have access.

Details

URI	`/catalog/<catalog_id>/subscription` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`requestor=<user_name>`
	Optional; user name must be valid and must be authorized to view the request.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
subscription?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscriptionList>
    <count>6</count>
    <limit>0</limit>
    <ServiceSubscription>
        <id>90d957ea3806fa7e013807acc79000b3</id>
        <iconUrl>/csa/images/library/serviceOfferingDefault58.png</iconUrl>
        <name>MY SR</name>
        <displayName>MY SR</displayName>
        <state>...</state>
        <artifactType>
            <name>SUBSCRIPTION</name>
            ...
        </artifactType>
        <disabled>false</disabled>
        <serviceOffering>...</serviceOffering>
        <subscriptionStatus>...</subscriptionStatus>
        <initiatingServiceRequest>...</initiatingServiceRequest>
        ...
    </ServiceSubscription>
     ...
</ServiceSubscriptionList>
```

Get subscription details

Details

URI	`/catalog/<catalog_id>/subscription/<subscription_id>` Us "Catalog API" on page 44 to get the catalog ID and "List subscriptions in the catalog" on the previous page to get the subscription ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

URI	`/catalog/<catalog_id>/subscription/<subscription_id>` Us "Catalog API" on page 44 to get the catalog ID and "List subscriptions in the catalog" on the previous page to get the subscription ID.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
subscription/90d957ea3806fa7e013807acc79000b3
?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscription>
    <id>90d957ea3806fa7e013807acc79000b3</id>
    <name>MY SR</name>
    <displayName>MY SR</displayName>
    <optionModel>...</optionModel>
    <serviceInstance>...</serviceInstance>
    <serviceOffering>...</serviceOffering>
    <subscriptionStatus>...</subscriptionStatus>
    <initiatingServiceRequest>...</initiatingServiceRequest>
    <basePrice xsi:type="recurrentPricingVO">...</basePrice>
    <basePrice xsi:type="initialPricingVO">...</basePrice>
    <totalPrice xsi:type="recurrentPricingVO">...</totalPrice>
    <totalPrice xsi:type="initialPricingVO">...</totalPrice>
    <pricingModel>...</pricingModel>
    <associatedRequest>
        <id>90e396c83a4cfd80013a4d06e29702bc</id>
        <name>Test Modify subscription</name>
    </associatedRequest>
    <associatedRequest>
        <id>90e396c83a4cfd80013a4d017e740003</id>
        <name>Test2 Modify subscription</name>
    </associatedRequest>
    ...
</ServiceSubscription>
```

List instances in the catalog

Deprecation Notice

The GET /catalog/<catalog_id>/instance URI has been deprecated. Use URI /user/myinstance instead as using the deprecated URI will not allow viewing instances created by users who previously had access to the catalog, but no longer have access.

Details

URI	`/catalog/<catalog_id>/instance` Use "List catalogs" on page 47 to get the catalog ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`requestor=<user_name>`
	Optional; user name must be valid and must be authorized to view the request.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/catalog/402895e33732af18013732b6f435006b/
instance?userIdentifier=90d9652b67ss6a930135f35b327e00a0
```

The following XML was returned:

```
<ServiceInstanceList>
     <count>6</count>
     <limit>0</limit>
     <ServiceInstance>
        <id>90d957ea3806fa7e01380f957d11070a</id>
        <name>MYSD_June 5, 2012 5:19:51 PM UTC</name>
```

```
        <displayName>MYSD</displayName>
        <state></state>
        <serviceInstanceState>...</serviceInstanceState>
        ...
      </ServiceInstance>
      ...
<ServiceInstanceList>
```

Get instance details

Details

URI	`/catalog/<catalog_id>/instance/<instance_id>` Use "Catalog API" on page 44 to get the catalog ID and "List instances in the catalog" on the previous page to get the instance ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Retire an approval

Details

URI	`/catalog/<catalog_idid>/approval/<approval_id>`
Method	DELETE

URI	`/catalog/<catalog_idid>/approval/<approval_id>`
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Caution: The approval is retired regardless of whether it was rejected or approved.

Get resource subscription details

Details

URI	`/catalog/<catalog_id>/resourceSubscription/<resource_subscription_id>`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone|subtree]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the object and its first level children are returned. If value is *subtree*, then the object and all of its descendants are returned.
	
	`detail=[required|basic|standard|template|full]`
	Optional; default is *full*. See "Values for the detail parameter" on page 147. Some API calls do not support all possible values for this parameter.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Chapter 4: Export API

Description

Use this API to export a supported artifact as a content archive. Supported artifacts include resource environments, resource offerings, service designs, service offerings, and catalogs.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/export/<artifact_id>`
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Bad request 404 - Not found 500 - Server exception

Note that the directory the archive will be downloaded to is defined by the REST client or browser in use.

Artifact archives are structured as following.

- Resource environment archive contains:
  - Resource environment XML
  - Manifest XML
- Resource offering archive contains:
  - Resource offering XML
  - Icons used for customizing resource offering
  - Manifest.XML
- Service design archive contains:
  - Service design XML
  - Resource offering XMLs
  - Icons used for customizing resource offerings and service design
  - Dynamic option JSP files
  - Manifest XML

- Service offing archive contains:
  - Service offering XML
  - Service design XML
  - Resource offering XMLs
  - Icons used for customizing service offering, service design, and resource offerings
  - Dynamic option JSP files
  - Manifest XML

- Catalog archive contains:
  - Catalog XML
  - Service offering XMLs
  - Service design XMLs
  - Resource offering XMLs
  - Resource environment XMLs
  - Icons used for customizing catalog, service offerings, service designs, and resource offerings
  - Dynamic option JSP files
  - Manifest XML

- Component palette archive contains:
  - Component palette XML
  - Service component type XMLs
  - Service component template XMLs
  - Resource offering type XMLs
  - Artifact relationship XMLs
  - Icon used for customizing component palette, service component types and templates
  - Manifest XML

Example

The following URL was sent to export a catalog:

```
https://<host>:<port>/csa/rest/export/8a81818f3d02fb7e013d0308894a0004
?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following response headers were returned, and include the name of the downloaded archive zip file, CATALOG_QA_Org_Catalog_8a81818f3d02fb7e013d0308894a0004.zip:

```
Status Code: 200 OK
Cache-Control: must-revalidate, post-check=0, pre-check=0
Content-Disposition: attachment;filename="CATALOG_QA_Org_Catalog_8a81818f3d02fb7
e013d0308894a0004"
Content-Type: application/zip;charset=UTF-8
Date: Tue, 26 Feb 2013 00:09:36 GMT
Expires: 0
Pragma: public
Server: Apache-Coyote/1.1
Transfer-Encoding: chunked
content-transfer-encoding: binary
```

Chapter 5: Import API

Description

Use this API to import artifacts from a CSA content archive. CSA archives are created via the export REST API, the content archive tool, or the CSA management console. The import operation imports the primary artifact and all associated artifacts.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/import`
Method	POST

URI	`/import`

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`file=<multipart_representation_of_service_offering_zip_file>`
	Required; type 'Multipart/Form-Data' CSA archive zip to be imported. Note that the directory the file will be imported from is defined by the REST client or browser in use. Typically the file parameter will not include a directory path.
	
	`update=[true|false]`
	Optional; default is false. If true, any existing artifacts of the same type and with the same name will be overwritten; otherwise the artifacts are created. Cannot be used with *updatePreserveExisting* parameter.
	
	`updatePreserveExisting=[true|false]`
	Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with *update* parameter.
	
	`orgForCatalogImport=<organization_name>`
	Required for import of catalog archive; the name of the organization to be used when creating the imported catalog.
	
	`associateProviders=[true|false]`
	Optional; default is false. If true, resource providers in the archive are bound to existing resource offerings and resource environments of the same provider type and display name in the database.
	
	`validateType=[COMPONENT_PALETTE|CATALOG|SERVICE_OFFERING|SERVICE_BLUEPRINT|RESOURCE_OFFERING|RESOURCE_ENVIRONMENT]`
	Optional; if specified, content archive is verified to be of the specified type. ||

Returns	200 - Updated 400 - Bad request 404 - Not found 500 - Server exception

Caution: Component palette import is an update operation, and so *associateProviders* and *updatePreserveExisting* parameters will be ignored.

The following headers must be set when using this API to upload the content archive:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"

- Content-Type: application/octet-stream

Example

The following URL was sent to import the contents of the specified archive.

```
https://<host>:<port>/csa/rest/import?userIdentifier=90d96588360da0c701360da0f1d
5f483&update=true&file=SERVICE_OFFERING_SO_ONE_
90cec2ff3c81b896013c81b8c1780097.zip
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ImportOperationResult>
  <additionalSummaryMessages>
    Service offering SO ONE imported successfully. (Id=90cec2ff3dc1d73b013dc1df0
b750028)
  </additionalSummaryMessages>
  <additionalSummaryMessages>
    Service design SD ONE imported successfully. (Id=90cec2ff3dc1d73b013dc1df09d
b0018)
  </additionalSummaryMessages>
  <importResultRecord>
    ea933ec5-ad7b-42b6-b47c-965ff76f7693
  </importResultRecord>
  <importStatus>SUCCESS</importStatus>
  <importSummary>
    Import of Service offering archive successful.
  </importSummary>
</ImportOperationResult>
```

Chapter 6: Importzip API

Deprecation Notice

The GET /importzip API has been deprecated. Use /import instead as using the deprecated API will not include new functionality.

Description

Use this API to import an artifact from a CSA artifact archive. CSA archives are created via the export REST API, the content archive tool, or the CSA management console. The import operation imports the primary artifact and all associated artifacts.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/importzip`
Method	POST

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`file=<file_name>`
	Required; multipart CSA archive zip to be imported. Note that the directory the file will be imported from is defined by the REST client or browser in use. Typically the file parameter will not include a directory path.
	
	`forceCreation=[true|false]`
	Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with *update* parameter.
	
	Caution: Produces same results as *updatePreserveExisting*. Allows for backward compatibility.
	
	`update=[true|false]`
	Optional; default is false. If true, any existing artifacts of the same type and with the same name will be overwritten; otherwise the artifacts are created. Cannot be used with *updatePreserveExisting* parameter.
	
	`updatePreserveExisting=[true|false]`
	Optional; default is false. If true, any existing artifacts of the same type with the same name will be preserved (not overwritten) and renamed. Existing references to these artifacts will automatically use the renamed artifacts. New artifacts are created from the archive. Cannot be used with *update* parameter.
	
	`orgForCatalogImport=<organization_name>`
	Required for import of catalog archive; the name of the organization to be used when creating the imported catalog.
	
	`associateProviders=[true|false]`
	Optional; default is false. If true, resource providers in the archive are bound to existing resource offerings and resource environments of the same provider type and display name in the database.
	
	`validateType=[COMPONENT_PALETTE | CATALOG | SERVICE_OFFERING | SERVICE_DESIGN | RESOURCE_OFFERING | RESOURCE_ENVIRONMENT]`
	Optional; if specified, content archive is verified to be of the specified type.

Returns	200 - Updated 400 - Bad request 404 - Not found 500 - Server exception

Caution: Component palette import is an update operation, and so associateProviders and

updatePreserveExisting parameters will be ignored.

The following headers must be set when using this API to upload the content archive:

- Content-type: multipart/form-data
- Content-Disposition: form-data; name="file"
- Content-Type: application/octet-stream

Example

The following URL was sent:

```
https://localhost:8444/csa/rest/importzip
       ?userIdentifier=90d96588360da0c701360da0f1d5f483&file=
       SERVICE_DESIGN_Simple_Compute_Linux_90cec2023cc75f8a013cc7643ad00034.zip
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<importMessageList>

  <messages>Service design Simple Compute Linux imported successfully.

(Id=90cec2ff3dd11298013dd1139eb7004f)</messages>

  <messages>Resource offering SA Offering imported successfully.

(Id=90cec2ff3dd11298013dd113992d000d)</messages>

  <messages>Resource offering uCMDB Offering imported successfully.

(Id=90cec2ff3dd11298013dd113977d0008)</messages>

  <messages>Resource offering vCenter Offering imported successfully.

(Id=90cec2ff3dd11298013dd1139a4f0016)</messages>

</importMessageList>
```

Chapter 7: Import_result API

Use this API to view detailed result information from importing a content archive. See "Import API" on page 79 for details on importing a content archive.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/import_result/<importResultRecord_id>` importResultRecord IDs are returned by the "Import API" on page 79"Import API" on page 79
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`format=HTML`
	Optional; returns results as HTML rather than the default XML

Returns	200 - Ok 400 - Bad request 404 - Not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/import_result/ea933ec5-ad7b-42b6-b47c-965ff76f7693
       ?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<ImportResult>
  <importResultLogEntry>
    <limit>0</limit>
    <artifactDescription>SO ONE</artifactDescription>
    <artifactDisplayName>SO ONE</artifactDisplayName>
    <artifactName>
      SO_ONE_February 11, 2013 7:08:05 PM UTC
    </artifactName>
    <artifactType>SERVICE_OFFERING</artifactType>
```

```
    <importOperation>Error</importOperation>
  </importResultLogEntry>
  <importResultLogEntry>
    <artifactDescription>SD ONE</artifactDescription>
    <artifactDisplayName>SD ONE</artifactDisplayName>
    <artifactName>SD_ONE_February 11, 2013 7:03:41 PM UTC</artifactName>
    <artifactType>SERVICE_BLUEPRINT</artifactType>
    <importOperation>Error</importOperation>
  </importResultLogEntry>
  <importSummary>
    Import of Service offering archive successful.
  </importSummary>
  <status>SUCCESS</status>
  <timeOfImport>March 31, 2013 7:19:01 PM UTC</timeOfImport>
  <userInformation>admin</userInformation>
</ImportResult
```

Chapter 8: Lifecycle engine API

Description

Use this API to work with lifecycle actions.Base URL

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

URI	Method	Parameters	Description
/lifecycleengine	GET	userIdentifier, serviceInstanceId	"Get latest lifecycle execution record for a service instance" on page 89
/lifecycleengine/<lifecycle_action_id>	GET	userIdentifer	"Get details for a lifecycle execution record" below
/lifecycleengine/execute	POST	userIdentifier	"Schedule lifecycle transition for service instance" on page 89

Get details for a lifecycle execution record

Details

URI	`/lifecycleengine/<lifecycle_action_id>`
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/lifecycleengine/90d96588360da0c701360da0f25400c2
?userIdentifier=90s96588670da0c701360da0f1d540a1
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LifecycleExecutionRecord>
    <callbackPending>false</callbackPending>
    <executionState>
        <id>90d96588360da0c701360da0f25400c2</id>
        <objectId>90d96588360da0c701360da0f25400c2</objectId>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <name>READY</name>
        <disabled>false</disabled>
        <categoryType>
            <id>90d96588360da0c701360da0f25200c1</id>
            <objectId>90d96588360da0c701360da0f25200c1</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>LIFECYCLE_EXECUTION_STATE</name>
            <extensible>false</extensible>
        </categoryType>
    </executionState>
    <reverse>false</reverse>
    <serviceInstance>
        <id>90d96588372d758101372d75aeb90087</id>
        <objectId>90d96588372d758101372d75aeb90087</objectId>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <disabled>false</disabled>
    </serviceInstance>
    <targetState>
        <id>90d96588360da0c701360da0f23700bb</id>
        <objectId>90d96588360da0c701360da0f23700bb</objectId>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <name>DEPLOYED</name>
        <disabled>false</disabled>
        <categoryType>
            <id>90d96588360da0c701360da0f21300ae</id>
            <objectId>90d96588360da0c701360da0f21300ae</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>LIFECYCLE_STATE</name>
            <extensible>false</extensible>
        </categoryType>
    </targetState>
</LifecycleExecutionRecord>
```

Get latest lifecycle execution record for a service instance

Details

URI	`/lifecycleengine`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`serviceInstanceId=<service_instance_id>`
	Required; the ID of the service instance.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Schedule lifecycle transition for service instance

Details

URI	`/lifecycleengine/execute`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Examples

Use the following URL:

```
https://<host>:<port>/csa/rest/lifecycleengine/execute
?userIdentifier=90s96588670da0c701360da0f1d540a1
```

The following XML was sent in the request:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<LifecycleExecutionRequest>
    <reverse>false</reverse>
    <serviceComponentId>90d96588372d758101372d75aebb009f</serviceComponentId>
    <serviceInstanceId>90d96588372d758101372d75aeb90087</serviceInstanceId>
    <targetStateName>DEPLOYED</targetStateName>
</LifecycleExecutionRequest>
```

Chapter 9: Login API

Description

Use this API to provide credentials for CSA REST APIs.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

URI	Method	Parameters	Description
/login/<organization_name>/<user_name>	GET	none	"Get userIdentifier" below
/login/<organization_name>/userLookup	GET	userName	"Get userIdentifier for user name with slash" on the next page

See "orgInformation API" on page 117 for getting an organzation's credentials.

Get userIdentifier

Details

URI	`/login/<organization_name>/<user_name>/` Where <organization_name> and <user_name> are your credentials for logging in to HP Cloud Service Automation.
Method	GET
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Note: Unlike most API calls, the arguments (organization name and user name) are part of the URL path rather than parameters.

Caution: If the trailing slash is not included, a portion of the user name might be truncated

when the user name includes non-alphanumeric characters. A best practice is to always include a trailing slash.

Example

To get the userIdentifier, we used the following URL:

```
https://<host>:<port>/csa/rest/login/MyOrganization/admin/
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<person>
    <id>90s96588670da0c701360da0f1d540a1</id> <!-- This is userIdentifier -->
    ... <!-- Remaining XML is not relevant for this example. -->
</person>
```

The value for `userIdentifier` is the first <id> value returned in the XML.

Get userIdentifier for user name with slash

Details

URI	`/login/<organization_name>/userLookup`
Method	GET
Parameters	`userName=<user_name>` Required; the user name you want to use as credentials for CSA.
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Example

To get the userIdentifier, we used the following URL:

```
https://<host>:<port>/csa/rest/login/MyOrganization/userLookup
?userName=admin/domain
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<person>
    <id>90s96588670da0c701360da0f1d540a1</id> <!-- This is userIdentifier -->
    ... <!-- Remaining XML is not relevant for this example. -->
</person>
```

The value for `userIdentifier` is the first <id> value returned in the XML.

Chapter 10: Notification API

Description

Use this API to retrieve the notification objects associated with <party_id>, or to send a notification to users or organizations.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

URI	Method	Parameters	Description
/notification/party/<party_id>	GET	userIdentifier, maxResults	"View list of notification objects" below
/notification/party	POST	userIdentifier	"Send notification" on page 96

View list of notification objects

Details

URI	`/notification/party/<party_id>` Where the party ID is the UUID of a person, organization, or group. See How to find a party ID.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	`maxResults=<n>`
	Optional; where n is the number of notification objects to return. Notification objects are ordered by createdOn date with most recent first. By default all notification objects will be returned.

URI	/notification/party/<party_id> Where the party ID is the UUID of a person, organization, or group. See How to find a party ID.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/notification/party/BFA0DB53DA414B90E04059106D1A24B5 ?userIdentifier=BFA0DB53DA414B90E04059106D1A24B5
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NotificationList>
    <notification>
        <notifContentBody>Your service subscription for {0} is now active. To view the details or make modifications,  go to the {1} and click the Subscriptions tab.</notifContentBody>
        <notifSubject>Your subscription is now active</notifSubject>
        <notifactionId>90d957ea3806fa7e01380f95d38d073a</notifactionId>
        <recepientId>BFA0DB53DA414B90E04059106D1A24B5</recepientId>
        <recepientName>consumer</recepientName>
        <senderContextArtifactName>CSA_CONSUMER</senderContextArtifactName>
        <senderContextArtifactTypeName>ORGANIZATION</senderContextArtifactTypeName>
        <tokens><tokenSequence>0</tokenSequence><value>my request</value></tokens>
        <tokens><tokenSequence>1</tokenSequence><value>CSA Consumer</value></tokens>
        ...
    </notification>
    ...
</NotificationList>
```

Send notification

Details

URI	/notification/party/<party_id>
Method	POST

URI	`/notification/party/<party_id>`
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Request body format

```
<Notification>
    <subject>Notification Subject goes in here</subject>
    <contentBody>Enter any text here, optionally including tokens: token0 = {0}.
Token1 = {1}</contentBody>
    <!-- Each recipient must have an id and type. Only PERSON and ORGANIZATION a
re valid types. Notifications will be sent to valid recipients and an error mess
age returned for the invalid ones. Response code 200 OK will be returned if ther
e is at least one valid recipient.
    -->
    <recipient>
        <id>UUID of the recipient</id>
        <type>PERSON</type>
    </recipient>
    <recipient>
        <id>UUID of organization</id>
        <type>ORGANIZATION</type>
    </recipient>
    <!-- tokens must be specified if your contentBody contains tokens. No token
validation is done.
     -->
    <tokens>
        <tokenSequence>0</tokenSequence>
        <value>Token 0 content</value>
    </tokens>
    <tokens>
        <tokenSequence>1</tokenSequence>
        <value>Token 1 content</value>
    </tokens>
</Notification>
```

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/notification/party?userIdentifier=90cec3a03a93ef8
9013a93f07b880001
```

The following XML was sent in the request (note that the second recipient.id is bad):

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Notification>
    <subject>Test Subject</subject>
    <contentBody>Test content body, token0 = {0}. Token1 = {1}</contentBody>
    <recipient>
        <id>90cec3a03a93ef89013a93f07b880001</id>
        <type>PERSON</type>
    </recipient>
    <recipient>
        <id>bad org id</id>
        <type>ORGANIZATION</type>
    </recipient>
     <tokens>
        <tokenSequence>0</tokenSequence>
        <value>Token 0 test content</value>
    </tokens>
    <tokens>
        <tokenSequence>1</tokenSequence>
        <value>Token 1 test content</value>
    </tokens>
</Notification>
```

The following response header status code was returned: `200 OK`

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NotificationPostResponse>
    <count>1</count>
    <errorMessage>Please enter a valid value for the recipient user id = bad org
id</errorMessage>
    <notification>
        <notifContentBody>Test content body, token0 = {0}. Token1 = {1}</notifCo
ntentBody>
        <notifCreatedOn>2012-11-14T10:25:06.021-07:00</notifCreatedOn>
        <notifSubject>Test Subject</notifSubject>
        <notifactionId>90cec39c3ae64d82013afff3e9c3002c</notifactionId>
        </recepientArtifactTypeId>
            90d96588360da0c701360da0ef03002c
        </recepientArtifactTypeId>
        <recepientArtifactTypeName>PERSON</recepientArtifactTypeName>
        <recepientEmailAddr>
            acctgconsumer@econ-csa.com
        </recepientEmailAddr>
        <recepientId>90cec3a03a93ef89013a93f07b880001</recepientId>
        <recepientName>acctgconsumer</recepientName>
        <senderContextArtifactId>
```

```
            90cec3a03a93ef89013a93f07b880001
        </senderContextArtifactId>
        <senderContextArtifactTypeId>
            90d96588360da0c701360da0ef03002c
        </senderContextArtifactTypeId>
        <senderContextArtifactTypeName>
            PERSON
        </senderContextArtifactTypeName>
        <source>EXTERNAL</source>
        <tokens>
            <tokenSequence>1</tokenSequence>
            <value>Token 1 test content</value>
        </tokens>
        <tokens>
            <tokenSequence>0</tokenSequence>
            <value>Token 0 test content</value>
        </tokens>
    </notification>
</NotificationPostResponse>
```

Chapter 11: Organization API

Description

Use this API to view HP CSA organizations.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

URI	Method	Parameters	Description
/organization	GET	userIdentifier, scope, detail	"View a list of organizations" on the next page Note: The user identified by userIdentifier must have admin access.
/organization/<organization_id>	GET	userIdentifier, scope, detail	"View an organization" on page 102
/organization/<organization_id>/approvalPolicy	GET	userIdentifer	"List organization's approval policies" on page 105
/organization/<organization_id>/approvalPolicy	POST	userIdentifer	"Create approval policy" on page 107
/organization/<organization_id>/approvalPolicy/<policy_id>	PUT	userIdentifer	"Update approval policy" on page 110
/organization/<organization_id>/approvalPolicy/<policy_id>	DELETE	userIdentifer	"Delete approval policy" on page 112
/organization/accessPoint	GET	orgName	"Retrieve organization LDAP access point information" on page 113
/organization/offering	PUT	userIdentifier, queryType, newReleases	"List most requested, recently requested, or new offerings" on page 114

View a list of organizations

Details

URI	`/organization/`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	Note: The user identified by userIdentifier must have admin access.
	`scope=base`
	Optional; the only valid value is *base*.
	`detail=basic`
	Optional; The only valid value is *basic*.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Example

The following URL was sent:

```
https://localhost:8444/csa/rest/organization/
?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=base&detail=basic
```

The following XML was returned:

```
<OrganizationList>
  <count>3</count>
   <limit>0</limit>
   <organization>
      <id>8a8181853810699a0138106dcdd00003</id>
      <objectId>8a8181853810699a0138106dcdd00003</objectId>
      <createdOn>2012-06-21T12:03:47.920-07:00</createdOn>
      <updatedOn>2012-06-21T12:04:10.597-07:00</updatedOn>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <description>desc - CSA organization</description>
      <iconUrl>/csa/images/library/Earth_48.png</iconUrl>
      <name>CSA</name>
      <displayName>CSA</displayName>
      <state>
         <id>90d96588360da0c701360da0ef470038</id>
```

```
            <objectId>90d96588360da0c701360da0ef470038</objectId>
            <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Active</description>
            <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
            <name>ACTIVE</name>
            <displayName>Active</displayName>
            <disabled>false</disabled>
            <categoryType>
               <id>90d96588360da0c701360da0ef420037</id>
               <objectId>90d96588360da0c701360da0ef420037</objectId>
               <isCriticalSystemObject>true</isCriticalSystemObject>
               <name>ARTIFACT_STATE</name>
               <displayName>Artifact State</displayName>
               <extensible>false</extensible>
            </categoryType>
         </state>
         <artifactType>
            <id>90d96588360da0c701360da0eefc002a</id>
            <objectId>90d96588360da0c701360da0eefc002a</objectId>
            <createdOn>2012-06-21T11:51:43.253-07:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Organization</description>
            <iconUrl>/csa/images/categories/artifact_type/organization.png</iconUr
l>
            <name>ORGANIZATION</name>
            <displayName>Organization</displayName>
            <disabled>false</disabled>
            <categoryType>
               <id>90d96588360da0c701360da0eeb40017</id>
               <objectId>90d96588360da0c701360da0eeb40017</objectId>
               <isCriticalSystemObject>true</isCriticalSystemObject>
               <name>ARTIFACT_TYPE</name>
               <displayName>Artifact Type</displayName>
               <extensible>false</extensible>
            </categoryType>
         </artifactType>
         <disabled>false</disabled>
         <partyType>
            <id>90d96588360da0c701360da0eff1005d</id>
            <objectId>90d96588360da0c701360da0eff1005d</objectId>
            <createdOn>2012-06-21T11:51:43.293-07:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Organization</description>
            <iconUrl>/csa/images/categories/party_type/organization.png</iconUrl>
            <name>ORGANIZATION</name>
            <displayName>Organization</displayName>
            <disabled>false</disabled>
            <categoryType>
```

```
            <id>90d96588360da0c701360da0efe20059</id>
            <objectId>90d96588360da0c701360da0efe20059</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>PARTY_TYPE</name>
            <displayName>Party Type</displayName>
            <extensible>false</extensible>
         </categoryType>
      </partyType>
      <businessRole>
         <id>90d96588360da0c701360da0f0020061</id>
         <objectId>90d96588360da0c701360da0f0020061</objectId>
         <createdOn>2012-06-21T11:51:43.300-07:00</createdOn>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <description>Consumer</description>
         <iconUrl>/csa/images/categories/business_role/consumer.png</iconUrl>
         <name>CONSUMER</name>
         <displayName>Consumer</displayName>
         <disabled>false</disabled>
         <categoryType>
            <id>90d96588360da0c701360da0effd0060</id>
            <objectId>90d96588360da0c701360da0effd0060</objectId>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <name>BUSINESS_ROLE</name>
            <displayName>Business Role</displayName>
            <extensible>false</extensible>
         </categoryType>
      </businessRole>
   </organization>
   ...
   </organization>
</OrganizationList>
```

View an organization

Details

URI	`/organization/<organization_id>` "View a list of organizations" on page 100 to get the organization ID.
Method	GET

URI	`/organization/<organization_id>` "View a list of organizations" on page 100 to get the organization ID.

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|baseplusone]`
	Optional; default is *base*. If value is *base*, then the object is returned. If value is *baseplusone*, then the base plus the first level children are returned. Note that *subtree* is **not** a valid value for this API call.
	
	`detail=[required|basic]`
	Optional; default is *basic*. See "Values for the detail parameter" on page 147.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Example

The following URL was sent:

```
https://localhost:8444/csa/rest/organization/8a8181853810699a0138106dcdd00003/
?userIdentifier=8a8181853810699a01381076be5400a0
```

The following XML was returned:

```
<Organization>
   <id>8a8181853810699a0138106dcdd00003</id>
   <objectId>8a8181853810699a0138106dcdd00003</objectId>
   <createdOn>2012-06-21T12:03:47.920-07:00</createdOn>
   <updatedOn>2012-06-21T12:04:10.597-07:00</updatedOn>
   <isCriticalSystemObject>false</isCriticalSystemObject>
   <description>desc - CSA organization</description>
   <iconUrl>/csa/images/library/Earth_48.png</iconUrl>
   <name>CSA</name>
   <displayName>CSA</displayName>
   <state>
      <id>90d96588360da0c701360da0ef470038</id>
      <objectId>90d96588360da0c701360da0ef470038</objectId>
      <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Active</description>
      <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
      <name>ACTIVE</name>
      <displayName>Active</displayName>
      <disabled>false</disabled>
```

```
      <categoryType>
         <id>90d96588360da0c701360da0ef420037</id>
         <objectId>90d96588360da0c701360da0ef420037</objectId>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <name>ARTIFACT_STATE</name>
         <displayName>Artifact State</displayName>
         <extensible>false</extensible>
      </categoryType>
   </state>
   <artifactType>
      <id>90d96588360da0c701360da0eefc002a</id>
      <objectId>90d96588360da0c701360da0eefc002a</objectId>
      <createdOn>2012-06-21T11:51:43.253-07:00</createdOn>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Organization</description>
      <iconUrl>/csa/images/categories/artifact_type/organization.png</iconUrl>
      <name>ORGANIZATION</name>
      <displayName>Organization</displayName>
      <disabled>false</disabled>
      <categoryType>
         <id>90d96588360da0c701360da0eeb40017</id>
         <objectId>90d96588360da0c701360da0eeb40017</objectId>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <name>ARTIFACT_TYPE</name>
         <displayName>Artifact Type</displayName>
         <extensible>false</extensible>
      </categoryType>
   </artifactType>
   <disabled>false</disabled>
   <partyType>
      <id>90d96588360da0c701360da0eff1005d</id>
      <objectId>90d96588360da0c701360da0eff1005d</objectId>
      <createdOn>2012-06-21T11:51:43.293-07:00</createdOn>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Organization</description>
      <iconUrl>/csa/images/categories/party_type/organization.png</iconUrl>
      <name>ORGANIZATION</name>
      <displayName>Organization</displayName>
      <disabled>false</disabled>
      <categoryType>
         <id>90d96588360da0c701360da0efe20059</id>
         <objectId>90d96588360da0c701360da0efe20059</objectId>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <name>PARTY_TYPE</name>
         <displayName>Party Type</displayName>
         <extensible>false</extensible>
      </categoryType>
   </partyType>
   <businessRole>
```

```
      <id>90d96588360da0c701360da0f0020061</id>
      <objectId>90d96588360da0c701360da0f0020061</objectId>
      <createdOn>2012-06-21T11:51:43.300-07:00</createdOn>
      <isCriticalSystemObject>true</isCriticalSystemObject>
      <description>Consumer</description>
      <iconUrl>/csa/images/categories/business_role/consumer.png</iconUrl>
      <name>CONSUMER</name>
      <displayName>Consumer</displayName>
      <disabled>false</disabled>
      <categoryType>
         <id>90d96588360da0c701360da0effd0060</id>
         <objectId>90d96588360da0c701360da0effd0060</objectId>
         <isCriticalSystemObject>true</isCriticalSystemObject>
         <name>BUSINESS_ROLE</name>
         <displayName>Business Role</displayName>
         <extensible>false</extensible>
      </categoryType>
   </businessRole>
</Organization>
```

List organization's approval policies

Details

URI	`/organization/<organization_id>/approvalPolicy`
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ApprovalPolicyList>
  <UserContextApprovalTemplate>
```

```
      <id>8a81818f3d1421e7013d1423646e0008</id>
      <objectId>8a81818f3d1421e7013d1423646e0008</objectId>
      <createdOn>2013-02-25T17:34:56.623-08:00</createdOn>
      <updatedOn>2013-02-25T17:34:56.627-08:00</updatedOn>
      ...
      <name>USER_CONTEXT_APPROVAL_TEMPLATE_QA_ORG_1</name>
      <displayName>
        QA Org 1 User Context Approval Template
      </displayName>
      <state> ... </state>
      <artifactType> ... </artifactType>
      ...
      <automaticApproval>false</automaticApproval>
      <automaticPeriodDuration>0</automaticPeriodDuration>
      <minApprovalRequired>0</minApprovalRequired>
      <approvalType>
        <id>90d96588360da0c701360da0f0b40094</id>
        <objectId>90d96588360da0c701360da0f0b40094</objectId>
        <createdOn>2013-02-25T17:32:55.620-08:00</createdOn>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <description>User Context Template</description>
        <iconUrl>
          /csa/images/categories/approval_type/user_context_template.png
        </iconUrl>
        <name>USER_CONTEXT_TEMPLATE</name>
        <displayName>User Context Template</displayName>
        <disabled>false</disabled>
        <categoryType>
          <id>90d96588360da0c701360da0f0ac0092</id>
          <objectId>90d96588360da0c701360da0f0ac0092</objectId>
          <isCriticalSystemObject>true</isCriticalSystemObject>
          <name>APPROVAL_TYPE</name>
          <displayName>Approval Type</displayName>
          <extensible>false</extensible>
        </categoryType>
      </approvalType>
      <approvalLevel>1</approvalLevel>
    </UserContextApprovalTemplate>
    <NamedApproverApprovalTemplate> ... </NamedApproverApprovalTemplate>
    <NamedApproverApprovalTemplate> ... </NamedApproverApprovalTemplate>
  </ApprovalPolicyList>
```

Create approval policy

Details

URI	`/organization/<organization_id>/approvalPolicy`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

The types of approval policies supported are: NamedApproverApprovalTemplate, NamedGroupApprovalTemplate, UserContextApprovalTemplate, and DelegatedApprovalTemplate.

In NamedApproverApprovalTemplate request body:

- displayName is required.
- approver is optional.
- minApprovalRequired is optional. If no approver is specified, defaults to 0. If any approver is specified, defaults to 1. Value cannot be greater than the number of approvers specified.
- automaticApproval is optional; if not present, default to false.If automaticApproval is true:
  - automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - automaticApprovalDecision is required; valid value is APPROVED or REJECTED.

Example request body:

```
<NamedApproverApprovalTemplate>
  <displayName>Name Ex Template 03</displayName>
  <approver><userName>consumer</userName></approver>
  ...
  <approver><userName>consumer04</userName></approver>
  <minApprovalRequired>1</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>12</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>REJECTED</name>
  </automaticApprovalDecision>
</NamedApproverApprovalTemplate>
```

In NamedGroupApprovalTemplate request body:

- displayName is required.
- group's distinguishedName is required.
- minApprovalRequired is optional and defaults 1. Value cannot be greater than the number of users in the group.
- automaticApproval is optional; if not present, defaults to false.If automaticApproval is true:
  - automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - automaticApprovalDecision is required; valid value is APPROVED, or REJECTED.

Example request body:

```
<NamedGroupApprovalTemplate>
  <displayName>Name Group Template 01</displayName>
  <group>
       <distinguishedName>
              cn=ServiceConsumer,ou=ConsumerGroup,ou=CSAGroups
       </distinguishedName>
  </group>
  <minApprovalRequired>0</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
  <automaticApprovalDecision><automaticApprovalDecision>
    <name>REJECTED</name>
  </automaticApprovalDecision>
</NamedGroupApprovalTemplate>
```

In UserContextApprovalTemplate request body:

- displayName is required.
- automaticApproval is optional; if not present, defaults to false.If automaticApproval is set to true:
  - automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
  - automaticApprovalDecision is required; valid value is APPROVED, or REJECTED.

Example request body:

```
<UserContextApprovalTemplate>
  <displayName>User ContextTemplate 01</displayName>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>7</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>APPROVED</name>
  </automaticApprovalDecision>
</UserContextApprovalTemplate>
```

In DelegatedApprovalTemplate request body:

- displayName is required.
- processDefinition is required, id is needed.
- automaticApproval is optional; if not present, defaults to false. If automaticApproval is set to true:

- automaticPeriodDuration (in days) is optional; if not present, defaults to 0. Valid value is integer from 0 to 365.
- automaticApprovalDecision is required; valid value is APPROVED, or REJECTED.

Example request body:

```
<DelegatedApprovalTemplate>
  <displayName>Name Ex Template 03</displayName>
  <processDefinition>
    <id>90d96507362a000a01362a0048bc00ad</id>
  </processDefinition>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>30</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>REJECTED</name>/
  </automaticApprovalDecision>
</DelegatedApprovalTemplate>
```

Example

The following URL was sent to create an approval policy with two named approvers:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy?userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request:

```
<NamedApproverApprovalTemplate>
  <displayName>My-New-Approval-Template</displayName>
  <approver><userName>ProjectManager</userName></approver>
  <approver><userName>BudgetManager</userName></approver>
  <minApprovalRequired>2</minApprovalRequired>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>14</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>APPROVED</name>
  </automaticApprovalDecision>
</NamedApproverApprovalTemplate>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
  <id>8a81818f3d1437e2013d17f249c30a0c</id>
  <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
  <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
  <updatedOn>2013-02-26T11:19:47.440-08:00</updatedOn>
  <createdBy> ... </createdBy>
  <updatedBy> ... </updatedBy>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <name>
```

```
    My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
  </name>
  <displayName>My-New-Approval-Template</displayName>
  <state> ... </state>
  <artifactType>
    <id>90d96588360da0c701360da0eef20027</id>
    <objectId>90d96588360da0c701360da0eef20027</objectId>
    <createdOn>2013-02-25T17:32:55.667-08:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Approval Template</description>
    ...
  </artifactType>
  <ownedBy> ... </ownedBy>
  <disabled>false</disabled>
  <automaticApproval>true</automaticApproval>
  <automaticPeriodDuration>14</automaticPeriodDuration>
  <minApprovalRequired>2</minApprovalRequired>
  <approvalType>
    <id>90d96588360da0c701360da0f0b00093</id>
    <objectId>90d96588360da0c701360da0f0b00093</objectId>
    <createdOn>2013-02-25T17:32:55.620-08:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Named Approver Template</description>
    ...
  </approvalType>
  <automaticApprovalDecision> ... </automaticApprovalDecision>
  <approver>
    <id>8a81818f3d1437e2013d17eec74408d8</id>
    ...
    <userName>BudgetManager</userName>
    ...
  </approver>
  <approver>
    <id>8a81818f3d1437e2013d177b13f107dd</id>
    ...
    <userName>ProjectManager</userName>
    ...
  </approver>
</NamedApproverApprovalTemplate>
```

Update approval policy

Details

URI	/organization/<organization_id>/approvalPolicy/<policy_id>
Method	PUT

URI	`/organization/<organization_id>/approvalPolicy/<policy_id>`
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy/8a81818f3d1437e2013d17f249c30a0c?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was sent in the request. It will change the list of approvers to user ProjectManager, set automaticApproval to false, and set automaticApprovalDecision to REJECTED.

```
<NamedApproverApprovalTemplate>
  <displayName>Updated-My-Approval-Template</displayName>
  <approver><userName>ProjectManager</userName></approver>
  <minApprovalRequired>0</minApprovalRequired>
  <automaticApproval>false</automaticApproval>
  <automaticPeriodDuration>0</automaticPeriodDuration>
  <automaticApprovalDecision>
    <name>REJECTED</name>
  </automaticApprovalDecision>
</NamedApproverApprovalTemplate>
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
  <id>8a81818f3d1437e2013d17f249c30a0c</id>
  <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
  <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
  <updatedOn>2013-02-26T11:45:06.900-08:00</updatedOn>
  ...
  <name>
    My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
  </name>
  <displayName>Updated-My-Approval-Template</displayName>
  ...
  <automaticApproval>false</automaticApproval>
  <automaticPeriodDuration>0</automaticPeriodDuration>
  <minApprovalRequired>1</minApprovalRequired>
```

```
  <approvalType>
    <id>90d96588360da0c701360da0f0b00093</id>
    ...
    <name>NAMED_APPROVER_TEMPLATE</name>
    ...
  </approvalType>
  <automaticApprovalDecision>
    <id>90d96588360da0c701360da0f091008c</id>
    ...
    <name>REJECTED</name>
    <displayName>Denied</displayName>
    ...
  </automaticApprovalDecision>
  <approver>
    <id>8a81818f3d1437e2013d177b13f107dd</id>
    ...
    <name>ProjectManager</name>
    ...
    <organization>
      <id>8a81818f3d1421e7013d1423635a0003</id>
      <objectId>8a81818f3d1421e7013d1423635a0003</objectId>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>QA_ORG_1</name>
      <displayName>QA Org 1</displayName>
      <disabled>false</disabled>
    </organization>
  </approver>
</NamedApproverApprovalTemplate>
```

Delete approval policy

Details

URI	`/organization/<organization_id>/approvalPolicy/<policy_id>`
Method	DELETE
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 404 - Object not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/8a81818f3d1421e7013d1423635a0003/
approvalPolicy/8a81818f3d1437e2013d17f249c30a0c?
userIdentifier=90d96588360da0c701360da0f1d5f483
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<NamedApproverApprovalTemplate>
  <id>8a81818f3d1437e2013d17f249c30a0c</id>
  <objectId>8a81818f3d1437e2013d17f249c30a0c</objectId>
  <createdOn>2013-02-26T11:19:47.397-08:00</createdOn>
  <updatedOn>2013-02-26T11:45:06.900-08:00</updatedOn>
    ...
  <name>
    My-New-Approval-Template_February 26, 2013 7:19:47 PM UTC
  </name>
  <displayName>Updated-My-Approval-Template</displayName>
  <state>
    <id>90d96588360da0c701360da0ef4b0039</id>
    <objectId>90d96588360da0c701360da0ef4b0039</objectId>
    <createdOn>2013-02-25T17:32:55.547-08:00</createdOn>
    <isCriticalSystemObject>true</isCriticalSystemObject>
    <description>Retired</description>
    <iconUrl>/csa/images/categories/artifact_state/retired.png</iconUrl>
    <name>RETIRED</name>
    <displayName>Retired</displayName>
    <disabled>false</disabled>
    <categoryType> ... </categoryType>
  </state>
  ...
</NamedApproverApprovalTemplate>
```

Retrieve organization LDAP access point information

Details

URI	`/organization/accessPoint`
Method	GET
Parameters	`orgName=<organization_name>` Required; the name of the organization for which the LDAP access point information is to be retrieved.

URI	`/organization/accessPoint`
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/accessPoint?orgName=ACCOUNTING
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<AccessPointInfo>
   <password>JfyPejrtsQc0J4bKDPmznlg==</password>
   <searchSubtree>false</searchSubtree>
   <uri>ldap://localhost:389/dc=csa,dc=org</uri>
   <userSearchBase>
      ou=eConsumerUsers,ou=EnterpriseUsers
   </userSearchBase>
   <userSearchFilter>uid={0}</userSearchFilter>
   <username>cn=admin,dc=csa,dc=org</username>
</AccessPointInfo>
```

List most requested, recently requested, or new offerings

Details

URI	`/organization/offering` Organization is determiend by userIdentifier.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`queryType=[mostRequested|recentlyRequested|newReleases]`
	Optional; the ten most requested, most recently requested, or newly released offerings in all catalogs for the organization are returned.

Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/organization/offering?userIdentifier=90e763db3ed8
fe91013ed90155e600b0&queryType=mostRequested
```

The following XML was returned in the response:

```
<ServiceOfferingList>
   <count>1</count>
   <limit>0</limit>
   <ServiceOffering>
     <id>90e763db3ed8fe91013ed9017c4e0264</id>
     <createdOn>2013-05-24T17:05:53.358-07:00</createdOn>
     <updatedOn>2013-05-24T17:06:05.287-07:00</updatedOn>
     <isCriticalSystemObject>false</isCriticalSystemObject>
     <description>Ready to do more today? Standardize on Red Hat Enterprise Linu
x and get more of everything you expect from an enterprise-class open source ope
rating system with flexibility, efficiency and control.</description>
     <detailedDescription>Ready to do more today? Standardize on Red Hat Enterpr
ise Linux and get more of everything you expect from an enterprise-class open so
urce operating system with flexibility, efficiency and control.</detailedDescrip
tion>
     <iconUrl>/csa/images/offerings/Microsoft-Frontpage-icon.png</iconUrl>
     <name>Enterprise Red Hat Linux Server</name>
     <displayName>Enterprise Red Hat Linux Server</displayName>
     <catalogItem>
       <id>90e763db3ed8fe91013ed901a9ae047d</id>
       <catalog>
         <id>90e763db3ed8fe91013ed90156b100b4</id>
         <isCriticalSystemObject>false</isCriticalSystemObject>
         <disabled>false</disabled>
       </catalog>
       <category>
         <id>90d96588360da0c701360da0f4cc00ec</id>
         <isCriticalSystemObject>false</isCriticalSystemObject>
         <name>APPLICATION_SERVERS</name>
         <displayName>Application Servers</displayName>
         <disabled>false</disabled>
       </category>
     </catalogItem>
     …
     <catalogItem>…</catalogItem>
     <state>
       <isCriticalSystemObject>false</isCriticalSystemObject>
       <disabled>false</disabled>
     </state>
     <artifactType>
```

```
        <id>90d96588360da0c701360da0eecb001b</id>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <disabled>false</disabled>
      </artifactType>
      <disabled>false</disabled>
    </ServiceOffering>
  </ServiceOfferingList>
```

Chapter 12: orgInformation API

Description

Use this API to get an organization's credentials.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/orgInformation/<organization name>`
Method	GET
Returns	200 - Ok 404 - Not found 500 - Server exception

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/orgInformation/my_organization
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Organization>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>My Organization</description>
    <name>my_organization</name>
    <disabled>false</disabled>
</Organization>
```

Chapter 13: Processinstances API

Description

The Processinstance API is used to return execution results from HP Operations Orchestration flows. When HP Operations Orchestration makes one of these REST calls, the process instance properties are updated accordingly. When the process completes, the process notification handler passes these properties to the caller.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

URI	Method	Parameters	Description
/processinstances/<process_instance_id>	GET	None	"Retrieve a process instance" on the next page
/processinstances	POST	userIdentifier	"Create a process instance" on page 121
/processinstances/<process_instance_id>	PUT	userIdentifier, scope, view, action	"Update a process instance" on page 122
/processinstances/<process_instance_id>/execute	POST	userIdentifie	"Execute a process instance" on page 125

Process Instance structure

XML structure

An abbreviated version of the XML for a process instance is provided below. Only properties that are relevant for APIs are shown; the XML returned by an API call will usually include much more than what is shown here.

```
<ProcessInstance>>
   <property>
     <isCriticalSystemObject></isCriticalSystemObject>
     <name></name>
     <paramRoleType>
       <isCriticalSystemObject></isCriticalSystemObject>
       <name></name>
       <disabled></disabled>
```

```
    </paramRoleType>
    <scope>
      <isCriticalSystemObject></isCriticalSystemObject>
      <name></name> </scope>
    <valueType>
      <isCriticalSystemObject></isCriticalSystemObject>
      <name></name>
      <disabled></disabled>
    </valueType>
    <values>
      <value></value>
    </values>
    <maxOccurs></maxOccurs>
    <minOccurs></minOccurs>
    <orderIndex></orderIndex>
    <confidential></confidential>
    <encrypted></encrypted>
    <readOnly></readOnly>
  </property>
  <processDefinition>
    <id></id>
    <name></name>
  </processDefinition>
  <processInstanceState>
    <isCriticalSystemObject></isCriticalSystemObject>
    <name></name>
    <disabled></disabled>
  </processInstanceState>
  <context></context>
</ProcessInstance>
```

Retrieve a process instance

Details

URI	`/processinstances/<process_instance_id>` Where <process_instance_id> is the process instance ID.
Method	GET
Parameters	None
Response Body	ProcessInstance VO
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

The following was sent to retrieve a process instance:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b3752ad4f013752ae38cb0065
```

The following XML was sent in the response:

```
<ProcessInstance>>
   <property>
     <isCriticalSystemObject>false</isCriticalSystemObject>
     <name>Unit Test Process Instance Property</name>
     <paramRoleType>
       <isCriticalSystemObject>false</isCriticalSystemObject>
       <name>INPUT</name>
       <disabled>false</disabled>
     </paramRoleType>
     <valueType>
       <isCriticalSystemObject>false</isCriticalSystemObject>
       <name>INPUT</name>
       <disabled>false</disabled>
     </valueType>
     <values>
       <value>Unit Test Process Instance Property Value</value>
     </values>
     <maxOccurs>0</maxOccurs>
     <minOccurs>0</minOccurs>
     <orderIndex>0</orderIndex>
     <confidential>false</confidential>
     <encrypted>false</encrypted>
     <readOnly>false</readOnly>
   </property>
   <processDefinition>
     <id>90d9652b35f41cbc0135f41cf1310004</id>
     <name>Unit Test Process Definition 1</name>
   </processDefinition>
   <processInstanceState>
     <isCriticalSystemObject>false</isCriticalSystemObject>
     <name>INITIALIZED</name>
     <disabled>false</disabled>
   </processInstanceState>
   <context>Context for Unit Test Process Instance</context>
   <artifactId>ID of the artifact executing the action</artifactId>
   <timeout>3600</timeout>
   <errorOnTimeout>false</errorOnTimeout>
 </ProcessInstance>
```

Create a process instance

Details

URI	`/processinstances`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Request Body	ProcessInstance VO
Response Body	ProcessInstance VO
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

The following must be provide in the request body:

- Process definition ID.
- Context string. Includes contextual information that is relevant for the caller after the process instance has been created.
- Artifact ID.
- Properties. The properties provided here will be merged with the process definition properties.

Two implicit tokens (reserved flow input variable names) are provided to process instances executed through the HP Operations Orchestration execution engine.

- CSA_PROCESS_ID - will be provided the value of the UUID of the process instance.
- CSA_CONTEXT_ID - will be provided the value of the Artifact ID. This is the artifact for which this process instance executes.

The following was sent to create a process instance:

```
https://<host>:<port>/csa/rest/processinstances/?userIdentifier=90d9652b35f35a93
0135f35b327e00a0
```

The following XML was sent in the request:

```
<ProcessInstance>>
   <property>
     <isCriticalSystemObject>false</isCriticalSystemObject>
     <name>Unit Test Process Instance Property</name>
     <paramRoleType>
       <isCriticalSystemObject>false</isCriticalSystemObject>
       <name>INPUT</name>
       <disabled>false</disabled>
```

```
    </paramRoleType>
    <valueType>
      <isCriticalSystemObject>false</isCriticalSystemObject>
      <name>STRING</name>
      <disabled>false</disabled>
    </valueType>
    <values>
      <value>Unit Test Process Instance Property Value</value>
    </values>
    <maxOccurs>0</maxOccurs>
    <minOccurs>0</minOccurs>
    <orderIndex>0</orderIndex>
    <confidential>false</confidential>
    <encrypted>false</encrypted>
    <readOnly>false</readOnly>
  </property>
  <processDefinition>
    <id>90d9652b35f41cbc0135f41cf1310004</id>
    <name>Unit Test Process Definition 1</name>
  </processDefinition>
  <processInstanceState>
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <name>INITIALIZED</name>
    <disabled>false</disabled>
  </processInstanceState>
  <context>Context for Unit Test Process Instance</context>
  <artifactId>ID of the artifact executing the action</artifactId>
  <timeout>3600</timeout>
  <errorOnTimeout>false</errorOnTimeout>
</ProcessInstance>
```

Update a process instance

Details

URI	`/processinstances/<process_instance_id>` Where <process_instance_id> is the process instance ID.
Method	PUT

URI	`/processinstances/<process_instance_id>` Where <process_instance_id> is the process instance ID.

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`view=<view_type>&scope=view`
	Optional; used to update process instance based on pre-defined views. Possible values for *view_type* are `propertyinfo` and `processinstancestate`. With `processinstancestate`, the process instance state, return code and status can be changed.
	
	`<property_>action<_>=merge`
	Optional; use the *merge* option with the *action* meta tag query parameter to update only a portion of the process instance. The following the use cases are allowed:
	
	• With `view=propertyinfo`, specifying `property_action_=merge` will merge the properties specified in the request body with the existing process instance properties.
	
	• With `view=processinstancestate`, specifying `action=merge` will merge the state information specified in the request body with the existing process instance state.

Request Body	ProcessInstance VO
Response Body	Updated ProcessInstance VO
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

Process instance state (processInstanceState) values:

- INITIALIZED
- PENDING
- READY
- ACTIVE
- COMPLETED
- ERROR
- CANCELED

Process instance return code (processReturnCode) values:

- SUCCESS
- FAILURE
- RUNNING
- TIMEOUT

Examples

The following was sent to update propertyinfo of a process instance:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71
?userIdentifier=90d9652b362d4ecd01362d4ef51e00a5&view=propertyinfo&scope=view&pr
operty_action_=merge
```

The following XML was sent in the request to update a property:

```
<ProcessInstance>>
   <id>90d9652b362d4ecd01362d4fb7be0f71</id>
   <property>
     <name>Property Name</name>
     <valueType>
       <name>STRING</name>
     </valueType>
     <values>
       <value>Hello World!</value>
     </values>
   </property>
 </ProcessInstance>
```

The following was sent to update the process instance state:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71
?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstance
state&action=merge
```

```
<ProcessInstance>>
   <id>90d9652b3752ad4f013752ae38cb0065</id>
   <processInstanceState>
     <name>COMPLETED</name>
   </processInstanceState>
 </ProcessInstance>
```

The following was sent to update the process instance return code:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b3752ad4f013752ae38cb0065
?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstance
state&action=merge
```

```
<ProcessInstance>>
   <id>90d9652b3752ad4f013752ae38cb0065</id>
   <processReturnCode>
     <name>SUCCESS</name>
   </processReturnCode>
 </ProcessInstance>
```

The following was sent to update the process instance state, status and return code:

```
?userIdentifier=90d96588360da0c701360da0f1d5f483&scope=view&view=processinstance
state&action=merge
```

```
<ProcessInstance>>
   <id90d9652b3752ad4f013752ae38cb0065</id>
   <processInstanceState>
     <name>COMPLETED</name>
   </processInstanceState>
   <processReturnCode>
     <name>SUCCESS</name>
   </processReturnCode>
   <status>The Process Instance has successfully completed.</status>
 </ProcessInstance>
```

Execute a process instance

Details

URI	`/processinstances/<process_instance_id>/execute`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Response Body	ProcessInstance VO
Returns	200 - Ok 401 - Not authorized 404 - Not found 500 - Server exception

The following was sent to retrieve a process instance:

```
https://<host>:<port>/csa/rest/processinstances/90d9652b362d4ecd01362d4fb7be0f71
/execute/?userIdentifer=90d9652b35f35a930135f35b327e00a0
```

Chapter 14: Search API

Details

URI	`/search`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`query=<string>`
	Required; returns search results that contain *string* in their display name or description.
	
	`type=[all|subscription|service_offering|service_request|approval_process]`
	Optional; default is *all*. The type of objects to search.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Chapter 15: User API

Description

Use this API to get information related to CSA users.

Base URL

https://<host>:<port>/csa/rest

URIs

The following URIs are appended to the base URL:

Request

A request is created whenever a user initiates, changes, or deletes a subscription.

URI	Method	Parameters	Description
/user/instance/<instance_id>/request	GET	userIdentifier	"List service requests for subscription" on page 129
/user/myrequest	GET	userIdentifier, scope, detail, submitter, returnRetired, submitStartDate, submitEndDate	"List active requests for user" on page 130
/user/request/count	GET	userIdentifier	"Get count of requests for user" on page 132
/user/multipleRequest/cancel	POST	userIdentifier	"Cancel multiple service requests" on page 133
/user/multipleRequest/delete	POST	userIdentifier	"Delete multiple service requests" on page 134

Approval

An approval is created when the approval manager approves a request.

URI	Method	Parameters	Description
/user/approval/count	GET	userIdentifier	"Get count of approvals for user" on page 137
/user/multipleApprovals/delete	POST	userIdentifier	"Delete multiple approval requests" on page 137
/user/myapproval	GET	userIdentifier, scope, detail, returnRetired, approver, creationStartDate, CreationEndDate	List approvals for approver

Subscription

A subscription is created when a consumer requests a service offering and includes all of the options selected by the consumer when the subscription was initiated.

URI	Method	Parameters	Description
/user/mysubscription	GET	userIdentifier, scope, detail, requestor, returnRetired, creationStartDate, creationEndDate, modificationStartDate, modificationEndDate	"List subscriptions for user" on page 138
/user/subscription/count	GET	userIdentifier	"Get count of subscriptions for user" on page 140
/user/subscription	GET	userIdentifier, queryType	"Get list of recent or expiring soon subscriptions for user" on page 141
/user/multipleSubscription/delete	POST	userIdentifier	"Delete multiple subscriptions" on page 141

Instance

An instance is created when a request is approved and includes details about the requested services such as the status of services, IP addresses, etc.

URI	Method	Parameters	Description
/user/myinstance	GET	userIdentifier, scope, detail, requestor, returnRetired, creationStartDate, creationEndDate	"List instances for user" on page 143

List service requests for subscription

Details

URI	`/user/instance/<instance_id>/request` Retuns the list of service requests for the specified subscription. A request's details will include information on any failed action instances.
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Method	GET
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/instance/90cec3a03a94d689013aa91e1b9b1218/request ?userIdentifier=BFA0DB53DA414B90E04059106D1A24B5
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceRequestList>
  <count>3</count>
  <limit>0</limit>
  <ServiceRequest>
    <id>90cec3a03a667c69013a9331365f3a54</id>Â Â Â
    <createdOn>2012-10-11T22:03:27.361-07:00</createdOn>
    <updatedOn>2012-10-11T22:04:20.553-07:00</updatedOn>
    <createdBy> ... </createdBy>
    <updatedBy> ... </updatedBy>
```

```
    <isCriticalSystemObject>false</isCriticalSystemObject>
    <description>OctoberSampleService</description>
    <iconUrl>/csa/images/library/Icon034_48.png</iconUrl>
    <name>Wednesday Demo</name>
    <displayName>Wednesday Demo</displayName>
    <disabled>false</disabled>
    <requestState> ... </requestState>
    <requestedAction> ... </requestedAction>
    <actionInstance>
      <id>90cec3a03a667c69013a9331a2800070</id>
      <createdOn>2012-10-11T22:04:05.248-07:00</createdOn>
      <updatedOn>2012-10-11T22:04:15.152-07:00</createdOn>
      <action> ... </action>
      <processInstance> ... </processInstance>
      <actionInstanceState> ... </actionInstanceState>
      <context>90cec3a03a667c69013a9331365f3a54</context>
      <callbackBean>requestPorcessorActionCallbackHandler</callbackBean>
      <callbackPending>false</callbackPending>
      <status> ... </status>
      <actionInstanceReturnCode> ... </actionInstanceReturnCode>
      <archive>false</archive></actionInstance>
  </ServiceRequest>
  ...
</ServiceRequestList>
```

List active requests for user

Details

URI	/user/myrequest
Method	GET

URI	`/user/myrequest`

Parameters	`userIdentifier=<user_id>`
	Required; this user must be in the same organization as submitter, and must have the necessary permissions for the data you want to work with.See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`sbmitter=<user_name>`
	Required; user name must be valid, and is the user whose request list will be returned by this call. *submitter* must be in the same organization as the user specified by *userIdentifier*.
	
	`returnRetired=[true|false]`
	Optional; default is *false*.
	
	`submitStartDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; requests submitted **on or after** start date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.
	
	`submitEndDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; requests submitted **before** end date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/myrequest?userIdentifier=8a8181853810699a013
81076be5400a0 &submitter=acctgconsumer
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceRequestList>
    <count>21</count>
    <limit>0</limit>
    <ServiceRequest>
        <id>8a8181853810699a01381079190800a7</id>
```

```
        <objectId>8a8181853810699a01381079190800a7</objectId>
        <createdOn>2012-06-21T12:16:08.073-07:00</createdOn>
        <updatedOn>2012-06-21T12:16:50.787-07:00</updatedOn>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <description>SD2 Offering</description>
        <detailedDescription>desc - SD2 offering</detailedDescription>
        <iconUrl>/csa/images/library/application.png</iconUrl>
        <name>request 1</name>
        <displayName>request 1</displayName>
        <state>
            <id>90d96588360da0c701360da0ef470038</id>
            <objectId>90d96588360da0c701360da0ef470038</objectId>
            <createdOn>2012-06-21T11:51:43.267-07:00</createdOn>
            <isCriticalSystemObject>true</isCriticalSystemObject>
            <description>Active</description>
            <iconUrl>/csa/images/categories/artifact_state/active.png</iconUrl>
            <name>ACTIVE</name>
            <displayName>Active</displayName>
            <disabled>false</disabled>
            <categoryType>
                <id>90d96588360da0c701360da0ef420037</id>
                <objectId>90d96588360da0c701360da0ef420037</objectId>
                <isCriticalSystemObject>true</isCriticalSystemObject>
                <name>ARTIFACT_STATE</name>
                <displayName>Artifact State</displayName>
                <extensible>false</extensible>
           </categoryType>
        </state>
        ...
    </ServiceRequest>
</ServiceRequestList>
```

Get count of requests for user

Details

URI	`/user/request/count` Gets the number of requests for the user associated with userIdentifier. The results are grouped by request state.
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.

URI	`/user/request/count` Gets the number of requests for the user associated with userIdentifier. The results are grouped by request state.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Cancel multiple service requests

Details

URI	`/user/multipleRequest/cancel`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified requests were canceled.) 401 - Not authorized 404 - Object not found 500 - Server exception

A request can only be cancelled if its state is PENDING.
Note:

- When a pending subscription modification request is canceled, only the modification is canceled; the subscription is not changed.
- Once a subscription request has been approved, the request can no longer be canceled. The subscription, though, can be canceled.

Example

Use the following URL:

```
https://<host>:<port>/csa/rest/user/multipleRequest/cancel
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```
<ServiceRequestList>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2c015103a4</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
```

```
            </catalog>
        </catalogItem>
    </ServiceRequest>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </ServiceRequest>
</ServiceRequestList>
```

The following XML was returned in the response. The count value indicates the number of service requests successfully canceled. A ServiceRequest element is included for each canceled service request

```
<ServiceRequestList>
    <count>2</count>
    <limit>0</limit>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2c015103a4</id>
  ...
    </ServiceRequest>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
  ...
    </ServiceRequest>
</ServiceRequestList>
```

Delete multiple service requests

Details

URI	`/user/multipleRequest/delete`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified requests were deleted.) 401 - Not authorized 404 - Object not found 500 - Server exception

A request can only be deleted if its state is APPROVED, DENIED, or CANCELED.

Example

Use the following URL:

```
https://<host>:<port>/csa/rest/user/multipleRequest/delete
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```
<ServiceRequestList>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2c015103a4</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </ServiceRequest>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </ServiceRequest>
</ServiceRequestList>
```

The following XML was returned in the response. The count value indicates the number of service requests successfully deleted. A ServiceRequest element is included for each deleted service request.

```
<ServiceRequestList>
    <count>2</count>
    <limit>0</limit>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2c015103a4</id>
        ...
    </ServiceRequest>
    <ServiceRequest>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
        ...
    </ServiceRequest>
/ServiceRequestList>
```

List approvals for approver

Details

URI	`/user/myapproval`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with.See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`returnRetired=[true|false]`
	Optional; default is *false*.
	
	`approver=<user_name>`
	Required; user name must be valid, and is the user whose approval list will be returned by this call. *approver* must be in the same organization as the user specified by *userIdentifier*.
	
	`creationStartDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; approval requests created on or after start date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.
	
	`creationEndDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; approval requests created before end date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.
	
	Caution: The users specified by `userIdentifier` and `approver` must be in the same organization.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Get count of approvals for user

Details

URI	`/user/approval/count` Gets the number of approvals for the user associated with userIdentifier. The results are grouped by approval result state.
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Delete multiple approval requests

Details

URI	`/user/multipleApprovals/delete`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified approval requests were deleted.) 401 - Not authorized 404 - Object not found 500 - Server exception

An approval request can only be deleted if its state is APPROVED or DENIED.

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/multipleApprovals/delete
?userIdentifier=90d965c0379fd06601379fd192b30ee6
```

The following XML was sent in the request:

```
<ApprovalProcessList>
    <approvalProcess>
        <id>90e72e713a94e0ab013aae76618e0e39</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </approvalProcess>
    <approvalProcess>
        <id>90e2a4133a75430b013a7a1328560377</id>
        <catalogItem>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </approvalProcess>
</ApprovalProcessList>
```

The following XML was returned in the response. The count value indicates the number of approval requests successfully deleted. An ApprovalProcess element is included for each deleted approval request.

```
<ApprovalProcessList>
    <count>2</count>
    <limit>0</limit>
    <ApprovalProcess>
        <id>90e72e713a94e0ab013aae76618e0e39</id>
        ...
    </ApprovalProcess>
    <ApprovalProcess>
        <id>90e2a4133a75430b013a7a1328560377</id>
        ...
    </ApprovalProcess>
</ServiceSubscriptionList>
```

List subscriptions for user

Details

URI	`/user/mysubscription`
Method	GET

URI	`/user/mysubscription`

Parameters	`userIdentifier=<user_id>`
	Required; this user must be in the same organization as requestor, and must have the necessary permissions for the data you want to work with.See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=[base|view]`
	Optional; default is *base*.
	
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`requestor=<user_name>`
	Required; user name must be valid, and is the user whose subscription list will be returned by this call. *requestor* must be in the same organization as the user specified by *userIdentifier*.
	
	`returnRetired=[true|false]`
	Optional; default is *false*.
	
	`creationStartDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; subscriptions created **on or after** start date and time will be included in the return.
	
	`creationEndDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; subscriptions created **before** end date and time will be included in the return. Note that creationStartDate must also be specified.
	
	`modificationStartDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; subscriptions updated **on or after** specified start date and time will be included in the return.
	
	`modificationEndDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; subscriptions updated **before** specified end date and time will be included in the return. Note that modificationStartDate must also be specified.
	
	Note that in all date parameters:
	• `T` serves as a separator between date and time.
	• Time will default to 00:00:00 if not specified.
	• Date and time are assumed to be in the time zone of the CSA server.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/mysubscription?userIdentifier=90d9652b67ss6a93013
5f35b327e00a0 &requestor=RnDUser
```

The following XML was returned:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceSubscriptionList>
    <count>6</count>
    <limit>0</limit>
    <ServiceSubscription>
        <id>90d957ea3806fa7e013807acc79000b3</id>
        <iconUrl>
            /csa/images/library/serviceOfferingDefault58.png
        </iconUrl>
        <name>MY SR</name>
        <displayName>MY SR</displayName>
        <state>...</state>
        <artifactType>
            <name>SUBSCRIPTION</name>
            ...
        </artifactType>
        <disabled>false</disabled>
        <serviceOffering>...</serviceOffering>
        <subscriptionStatus>...</subscriptionStatus>
        <initiatingServiceRequest>...</initiatingServiceRequest>
        ...
    </ServiceSubscription>
     ...
</ServiceSubscriptionList>
```

Get count of subscriptions for user

Details

URI	`/user/subscription/count` Gets the number of subscriptions for the user associated with userIdentifier. The resutls are grouped by subscription status.
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok 401 - Not authorized 500 - Server exception

Get list of recent or expiring soon subscriptions for user

Details

URI	`/user/subscription` Returns a list of subscriptions for the user associated with userIdentifier.
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; the user ID you want to use as credentials for this API call. This user should be a consumer user who has the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`queryType=[expiringSoon|recent]`
	Optional; *expiringSoon* returns the user's subscriptions that will expire within the next 30 days, and *recent* returns the last five subscriptions initiated by the user.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Delete multiple subscriptions

Details

URI	`/user/multipleSubscription/delete`
Method	POST
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Ok (Indicates the REST call executed without error. See XML return content for whether all specified subscriptions were deleteed.) 401 - Not authorized 404 - Object not found 500 - Server exception

Example

Use the following URL:

```
https://<host>:<port>/csa/rest/user/multipleSubscription/delete
?userIdentifier=90d965c0379fd06601379fd192b30ee6 Â
```

The following XML was sent in the request:

```
<ServiceSubscriptionList>
    <ServiceSubscription>
        <id>90e72e283b05aff1013b0b2c015103a4</id>
        <catalogItem>
               <id>90cef5de3c63429f013c6489245b09a2</id>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </ServiceSubscription>
    <ServiceSubscription>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
        <catalogItem>
      <id>90cef5de3c63429f013c648924bf09b4</id>
            <catalog>
                <id>90d965c0379fd06601379fd1936a0f05</id>
            </catalog>
        </catalogItem>
    </ServiceSubscription>
</ServiceSubscriptionList>
```

The following XML was returned. count indicates the number of subscriptions successfully deleted. A ServiceSubscription element is included for each deleted subscription.

To make this example more informative, note in the following return information that the first subscription is not deleted. A subscription will not be deleted during this call if the subscription was already deleted, it is not in the canceled state, permission is denied, or there is an authorization failure

```
<ServiceSubscriptionList>
    <count>1</count>
    <limit>0</limit>
    <ServiceSubscription>
        <id>90e72e283b05aff1013b0b2b43fc0356</id>
  <isCriticalSystemObject>false</isCriticalSystemObject>
  <disabled>false</disabled>
</ServiceSubscription>
</ServiceSubscriptionList>
```

List instances for user

Details

URI	`/user/myinstance`
Method	GET

Parameters	`userIdentifier=<user_id>`
	Required; this user must be in the same organization as requestor, and must have the necessary permissions for the data you want to work with. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
	
	`scope=base`
	Optional; the only valid value is *base*.
	`detail=basic`
	Optional; The only valid value is *basic*.
	
	`requestor=<user_name>`
	Required; user name must be valid, and is the user whose subscription list will be returned by this call. *requestor* must be in the same organization as the user specified by *userIdentifier*.
	
	`creationStartDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; instances for subscriptions created on or after start date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.
	
	`creationEndDate=<yyyy-MM-ddTHH:mm:ss>`
	Optional; instances for subscriptions created before end date and time will be included in the return. *T* serves as a separator between data and time. Time will default to 00:00:00 if not specified. Date and time are assumed to be in the time zone of the CSA server.

Returns	200 - Ok 401 - Not authorized 500 - Server exception

Examples

The following URL was sent:

```
https://<host>:<port>/csa/rest/user/myinstance?userIdentifier=90d9652b67ss6a930135f35b327e00a0 &requestor=johnsmith
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ServiceInstanceList>
     <count>6</count>
     <limit>0</limit>
     <ServiceInstance>
        <id>90d957ea3806fa7e01380f957d11070a</id>
        <name>MYSD_June 5, 2012 5:19:51 PM UTC</name>
        <displayName>MYSD</displayName>
        <state></state>
        <serviceInstanceState>...</serviceInstanceState>
        ...
     </ServiceInstance>
     ...
<ServiceInstanceList>
```

Chapter 16: Utilization API

Description

Use this API to retrieve a list of resource utilization objects for the specified subscription.

Base URL

https://<host>:<port>/csa/rest

Details

URI	`/utilization/<subscription_id>` See List subscriptions for user for information on obtaining subscription IDs.
Method	GET
Parameters	`userIdentifier=<user_id>` Required; the user ID you want to use as credentials for this API call. See "Get userIdentifier" on page 91 for the steps required to get the userIdentifier value.
Returns	200 - Updated 404 - Not found 500 - Server exception

Example use context

An organization's policy is to do resource provider selection based on available capacity for all providers. The information returned by this API can be used to determine what resources are already in use.

Example

The following URL was sent:

```
https://<host>:<port>/csa/rest/utilization/90cec3a03a667c69013a6d7f0eea2cb3
```

The following XML was returned in the response:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<UtilizationList
  <utilization>
    <resourceBindingId>90e72d913d936a9a013d937bdb570161</resourceBindingId>
    <resourcePool>
      <id>90e72d913d936a9a013d936c74040006</id>
      <objectId>90e72d913d936a9a013d936c74040006</objectId>
```

```
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <name>Pool_1_March 22, 2013 6:46:31 PM UTC</name>
        <displayName>Pool 1</displayName>
        <disabled>false</disabled>
        <poolReference>poolref</poolReference>
      </resourcePool>
      <resourceProvider>
        <id>90e72d913d936a9a013d936c262b0004</id>
        <objectId>90e72d913d936a9a013d936c262b0004</objectId>
        <isCriticalSystemObject>false</isCriticalSystemObject>
        <name>Provider_1_March 22, 2013 6:46:11 PM UTC</name>
        <displayName>Provider 1</displayName>
        <disabled>false</disabled>
      </resourceProvider>
      <resourceType>
        <id>6A883A543D1248DDBB6045AD6A06BEA2</id>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <description>Megabytes of memory</description>
        <name>MEMORY</name>
        <displayName>Memory</displayName>
        <disabled>false</disabled>
      </resourceType>
      <serviceComponentId>90e72d913d936a9a013d937bdb56015a</serviceComponentId>
      <serviceInstanceId>90e72d913d936a9a013d937bdb530138</serviceInstanceId>
      <unit>
        <id>ED2CE3264F764F55877EE0CDFEE0EFB4</id>
        <isCriticalSystemObject>true</isCriticalSystemObject>
        <description>Megabytes</description>
        <name>MB</name>
        <displayName>MB</displayName>
        <disabled>false</disabled
      </unit>
      <usage>1024</usage>
    </utilization>
    <utilization> … </utilization>
    <utilization> … </utilization>
    …
  </UtilizationList>
```

Chapter 17: Values for the detail parameter

The detail parameter has the following values:

- **Required**: Retrieves all the non-null and non-optional fields of an artifact. This includes fields with Java primitive types – byte, short, int, long, float, double, boolean and char.
- **Basic**: In addition to the Required fields of an artifact, retrieves nullable primitive types (Java wrapper classes) and Date, Time, TimeStamp and BigDecimal.
- **Standard**: In addition to the Basic fields of an artifact, retrieves all non-CSA type fields.
- **Template**: Retrieves all fields of an artifact except for artifact collection references and artifacts that are part of a containment relationship. This is same as the Full option without artifact collection references. This option is mainly used for performance reasons, because you could end up retrieving a large amount of data. For example, you can use this option if you do not want to load the base service instances when retrieving its service blueprint. Service instances are artifacts and are associated through a collection reference with its blueprint.
- **Full**: All fields except for artifacts that are part of a containment relationship. Retrieval of the internal artifacts is controlled by the scope parameter. Using this option has a performance impact (See Template option) because this option also returns artifact collection references.

Note: Some API calls do not support all possible values for this parameter.

Chapter 18: Values for the scope parameter

The scope parameter has the following values:

- **Base**: Retrieves the root entity of the artifact including all required attributes.
- **Baseplusone**: In addition to Base, retrieves all first level child artifacts.
- **Subtree**: In addition to Base, retrieves all its descendants. Using this option could have a performance impact because the information being retrieved can be very large.
- **View**: Retrieves only those attributes defined for the view specified in the *detail* parameter.

We appreciate your feedback!

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on API Reference (Cloud Service Automation 4.10)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to CSAdocs@hp.com.

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